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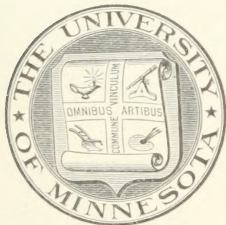
CURRENT PROBLEMS

NUMBER 1

THE WORK OF PUBLIC SERVICE COMMISSIONS

WITH SPECIAL REFERENCE TO THE NEW YORK COMMISSIONS

BY
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THE WORK OF PUBLIC SERVICE COMMISSIONS

I. GENERAL HISTORICAL SKETCH¹

1. INCREASE OF UTILITIES AND OF OUR DEPENDENCE ON THEM

Accompanying the remarkable growth of cities in the nineteenth century, there has been a notable change in their character. In comforts and conveniences the city of Shakespeare's day was almost on a par with that of the days of Washington. When Jefferson became president, some cities had crude sewer and water systems, indeed, and probably a few of Benjamin Franklin's street-lamps, but what a contrast do these few conveniences make with those possessed by an American city when McKinley began his second term. Street railways, gas, electricity, central heating plants, telephones, and telegraphs, and, besides, better water and sewer systems than men of 1800 could have dreamed of, are to be found in most modern cities. Upon these services the citizens have become dependent as never before. A breakdown of the electric-light plant, or a tie-up of the street-car service, is instantly felt by the city, and results in general and serious inconvenience. Together with the railroads and some other businesses, the industries enumerated above have become "clothed with a public interest", and are to-day of vital and widespread concern. Sooner or later in the history of these industries the public was certain to demand a voice in the control of them.

¹This sketch is limited in two ways; first, as it concerns the regulation of municipal utilities, it covers only the period of such modern public utilities as gas, electricity, and street railways; and, second, the history of the rise of regulatory commissions is confined to the movement in New York and near-by states, and does not cover the Granger movement in the Middle West.

2. METHODS OF CONTROL

Before beginning to review the history of the movement for the regulation of public utilities, it will be well to classify the possible methods of control.²

- I. Control by economic forces—competition
- II. Control by governmental action
 - A. Under private ownership
 - 1. Control by legislature
 - a. Local legislatures
 - (1) Through control of franchises
 - (2) By ordinances
 - b. State legislatures
 - (1) Through control of franchises
 - (2) By laws reducing price, etc.
 - (3) By such special methods as the sliding scale
 - 2. Control by administrative commissions
 - a. Commissions with power to investigate and advise only
 - (1) Local commission
 - (2) State commission
 - b. Commissions with power to enforce their orders³
 - (1) Local commission⁴
 - (2) State commission⁴
 - B. By public ownership

In the early days of the modern public service corporations, the public did not insist very strongly upon controlling them. The prevalent *laissez-faire* doctrine, and the need of rapid development prevented the immediate rise of a desire for regulation. Moreover, gas of low candle-power at ten dollars per thousand feet had no great advantage over candles or oil, and competition between these luminants lasted for some time.⁵ The

²This is, of course, rather an outline than a complete classification. For another such see E. N. Wrightington in the Proceedings of the National Municipal League (1910), p. 193.

³Often called "strong" commissions, as contrasted with advisory or "weak" commissions.

⁴It will be noted that there is here a cross-classification as between *a* and *b*.

⁵Such competition still exists, of course. See T. N. Vail, "Public Utilities and Public Policy," *Atlantic* (March, 1913), vol. 111, p. 307.

users of gas grew more numerous, however; gas companies became rich and powerful; and then there began to creep into the industry those abuses which have become by-words among us. As the other public service industries arose, they, too, became tainted with the same abuses: extortionate rates, discrimination, over-capitalization, poor service, and corruption of public officers. These abuses need no description.

3. FAILURE OF COMPETITION TO REGULATE PUBLIC UTILITIES

Many thinkers still hold to the idea that competition is an efficient means of regulating business; that if competition could be ensured, business would need no governmental supervision. In the early days of public service companies few people saw any reason to believe that competition would fail to bring about low prices and good service from such companies. Not until competition had proved itself ineffectual in this field, and it had been demonstrated that these industries are "natural monopolies", could the majority of men align themselves either for public ownership or for private ownership under regulation. For it is clear that monopolies must be either owned or controlled by the public, whereas in competitive industries regulation is not so clearly needed.⁶

The history of the gas business in New York City shows clearly the failure of competition in such an industry. In 1823 was formed the New York Gas-Light Company, the first of its kind in the city. Competition was the order of the day, and soon other companies entered the same field, even laying pipes in streets already served by other concerns. In 1883 there were eight gas light companies in the city, and in the street-railway business conditions were quite similar, competing lines paralleling each other at the distance of a single block. By this time the gas companies had found that competition produced such deplorable conditions that they prayed the legislature for permission to consolidate. Authority was given, and seven of the eight

⁶A. Professor John H. Gray, recently in charge of the National Civic Federation's investigation, has often said: "Competition and regulation are inconsistent with each other."

formed a merger in 1884. Meanwhile abuses in the service had been growing apace. In 1869 the state assembly had investigated the gas companies in the city and had found poor service coupled with extortionate prices and reckless financiering.⁷ Again in the early eighties complaints against the gas service were increasing; in 1884 they were all directed against the new gas merger; and in 1885 the state Senate appointed a committee of three to investigate.⁸ In the hearings before this committee it was clearly proved that competition had failed to give the city cheap gas. It was shown that high prices, poor service, and eventual consolidation always result from competition.⁹ There are numerous other instances of the inefficacy of competition to regulate such an industry, and in no case has competition in public services been an unmixed blessing.¹⁰

⁷ *New York Gas Investigation Report* (1869).

⁸ *New York Gas Investigation Report* (1885).

⁹ The following collation is drawn from the published proceedings of the investigation of 1885. Mr. James H. Armington, of the Brooklyn Gas-Light Company, was answering queries put to him by members of the Committee and others:

Q. What, in your opinion, is the effect of competition between gas companies in large cities like New York and Brooklyn?

A. So far as I have looked into the subject, I have never known of an instance where it did not increase the price of gas.

Q. Looking to the Committee why?

A. It seems to me patent to everybody what if a gas company, for instance, lays a main pipe in Brooklyn or any other town, and it is of sufficient dimensions to supply all the gas to that thoroughfare, that capital is already expended, and, if anybody else comes in and lays pipes in the same place, somebody has got to come in and pay the interest on that additional capital, and that somebody is the consumer generally.

Q. And there is needless duplication of capital?

A. Yes, sir; in our case seven times over.

Q. You can think if a few enterprising gentlemen could start additional companies, that the public would be compelled to run for their necessities?

A. It does show to take care there is the capital expended on which somebody else can interest as long as the competition lasts; you can see in the proprietor of this hotel has just enough guests to fill it, and he went across the street and bought another piece of property, and built a hotel, he would have to charge three guests enough to keep the other.

Q. You put me back but although there may be a sharp competition in time, that failing that, there will be either a pooling or a division of the territory, as in the city of Brooklyn?

A. Yes, sir.

Q. And there is no satisfaction left to the public, is that saying?

A. Yes, sir.

Q. I think consolidation at all times, of any corporations, is ruinous to the public?

A. We have no power under any existing influence on the legislature supplying the answer.

¹⁰ *Statement of the Committee on Public Utilities*, in 5th Cong. Rep., Editorials in *Engineering News-Record*, 44 (1905), 210; for illustration of the fact, see *New York Gas Investigation Report* (1885), especially pp. 126-31, 137-38; F. H. Thompson, *Consolidation of Public Utilities* (New York, 1904), 24, gives an instance from LaCrosse, Wisconsin, 1890.

Men who had studied the problem had, by 1880-90, come to see clearly that competition in these industries is impossible. The phrase "natural monopoly" begins about this time to appear more frequently in the literature on the subject, and the idea it contained slowly spread through newspapers and magazines to the mass of the voters. Nevertheless, the old error died hard, is not yet wholly extinct, in fact; and it is now clear that promoters of new companies and inventors with patents to sell allied themselves with popular ignorance and conservatism to keep alive the old fallacy of the efficacy of competition.¹¹ As late as 1879 a local rapid transit commission advised the mayor of New York that the "public interest demands a healthy competition as an essential part of the rapid transit system,"¹² while the state legislature in 1885 ignored the advice of the Senate committee to end competition and tried to re-establish competition by fiat of law.¹³

When by the slow process of education a majority of interested people had at last perceived the futility of competition in public service industries, these became thoroughly hated, as monopolies have ever been hated, and there was then a fairly quick alignment of forces. These monopolies must be controlled; should it be through public ownership or by governmental regulation?¹⁴

4. SLOW PROGRESS OF THE MUNICIPAL OWNERSHIP MOVEMENT

Roughly speaking, from 1890 to 1907 municipal ownership was in great favor as the true solution of the public utilities problem. The movement was not new in 1890, nor is it dead or even dying now; but before that year the issue was beclouded by the belief in competition, and since 1907 regulation by expert commissions has apparently had a larger following

¹¹See J. H. Gray, "The Gas Supply of Boston," in the *Quarterly Journal of Economics*, vol. 11, no. 3, New York Gas Interrelation Report (1883), appendix, p. 139-48.

¹²See Annual Report of the First District Commission, for Year Ending Dec. 31, 1879, vol. 1, appendix J, pp. 34-38.

¹³*Id.*, pp. 4-7, and New York Gas Interrelation Report (1883), p. 140.

¹⁴E. W. Bemis, *Municipal Monopolies* (1899), pp. 631-80. His opening sentence is: "From what has gone before, it is evident that there must be either strict regulation or public ownership, with or without public operation, of city monopolies."

than public ownership. During this seventeen-year period those who urged regulation rather than ownership were increasing in number but were still distinctly in a minority. Municipal ownership seemed to have a clear field, and some explanation must be made of its failure to gain immediately the success which some men wished it.

The movement was opposed by the more wealthy and conservative elements in each community as a matter of course. This opposition was often unscrupulous in the means used to defeat municipal ownership; it frequently prevented legislatures from authorizing cities to municipalize local industries, and, if defeated in that, it fought the issue in the local elections, the local councils, and the courts. It circulated considerable literature, much of it truthful, to prove the failure of municipal ownership where tried, and, in cases of direst need, it could reduce prices or improve the service and thus partially remove the objections to private ownership. Meanwhile those who supported municipal ownership were not the richest men; many could be discredited with conservative people by being called socialists, visionaries, and doctrinaires. Individualistic ideas were still strong. Moreover, the numerous exposures of corruption in city government which came at this time had tremendous weight as an argument against the movement. The people would not burden themselves with large debts merely to give to inefficient and apparently broken-down city governments additional opportunities for mismanagement. It could also be proved that in the United States, at least, public ownership had not been uniformly successful. Laboring under these disadvantages, the movement made slow progress, while the need of some action grew increasingly evident. For immediate relief, some other solution of the question was demanded.¹⁵

3. PUBLIC REGULATION OF UTILITIES

LEGISLATION AS THE REGULATING AUTHORITIES

Even while men continued to believe in competition as a preventative of, or remedy for, abuses in public service management,

¹⁵ These figures given in this summary are necessarily only approximate. The year 1890 was selected, the first of the real public service commissions, but regulation had long been working a temporary check on capitalist ownership.

various modes of regulation were also being tried.¹⁶ Local and state legislatures, by means of carefully drawn franchise grants, and by legislation under the police power, strove with increasing honesty and diligence to control the affairs of public service companies and to protect the public against abuses. But their success was small, especially in the case of municipal councils, and for this the courts are at least partially responsible. However, legislatures are not adapted to the work of regulation of public service corporations, and their failure is therefore not due to such exceptional causes as corruption and inefficiency, but is the rule which will continue while legislatures are legislatures. These are large bodies, made up of honestly prejudiced representatives, not impartial experts, meeting only occasionally and having much work to do in a short time. Public service corporations are in operation every day, and, if they need regulation, they must be regulated by a body of equal permanence, as well as equal watchfulness, equal knowledge, and equal power. A legislature is not such a body.¹⁷

RISE OF PUBLIC SERVICE COMMISSIONS

The New England and middle eastern states, first to become densely populated, industrial communities, felt first the need of regulating public service corporations. New York and Massachusetts were early experimenters in this field, the railroad problem first attracting their attention. In 1855 New York created a Railroad Commission of three members with supervisory powers. After two years it was abolished.¹⁸ In 1869 Massachusetts created its successful Railroad Commission.¹⁹ In the same year a committee of the New York Assembly, after an in-

¹⁶This seems logical enough if we accept the doctrine that competition and regulation are inconsistent with each other.

¹⁷On the failure of legislatures to give proper regulation, see a brief discussion in C. L. King, *The Regulation of Municipal Utilities* (1912), pp. 18-22, 190-191. Mr. King discusses in these pages also regulation by law-suit and by initiative and referendum. A fair reading of Mr. Stiles P. Jones' article on "The Minneapolis Gas Settlement" (reprinted in Mr. King's volume, pp. 56-72), though it is written by one who opposes state public service commissions, will serve to show why local legislatures fail. The failure of state legislatures to regulate utilities effectively is brought out in the *New York Gas Investigation Reports of 1869, 1885, and 1905*. This history will be touched upon later.

¹⁸See Annual Report of the Public Service Commission for the First District for the Year Ending Dec. 31, 1907, vol. 1, pp. 452-4.

¹⁹See Frank Hendrick, *Railroad Control by Commissions*.

investigation of the gas service in New York City, advised that "the entire system of lighting the city should be under the control of practical chemists, whose duty it should be to determine the quality of gas furnished, and, in case the companies do not comply with the law, should have power to compel them to do so".²⁰ A bill to this effect failed to pass, but it was clear that the single "Inspector of Gas Meters" was unable to prevent abuses.²¹

The rapid transit problem of New York City, at first as now not so much one of regulation as of getting sufficient service, became pressing as early as 1866, and was partially solved by the Rapid Transit Acts of 1875 and later years, creating temporary and later permanent commissions. Meanwhile the agitation for a railroad commission was revived, and in 1882 New York followed the lead of Massachusetts by creating an advisory Railroad Commission which lasted until 1907.²² The regulatory commission was gaining ground, from Massachusetts to California, in the nation as well as in the states.

In 1885, as in 1869, New York and Massachusetts acted simultaneously. To gain its own ends against J. Edward Adicks, the Boston Gas Company induced the General Court of Massachusetts to create the Board of Gas Commissioners, a fairly successful advisory commission, still existing as the Board of Gas and Electric Light Commissioners.²³ In the same year a committee of the New York Senate investigated the gas business in New York City, found the charges of extortion and poor service substantially true, and learned that competition had failed, and must fail, to regulate.²⁴ The recommendations of this committee are remarkable, but only the price reduction was adopted as law.²⁵ The legislature, contrary to the advice of

²⁰ See the Investigation Report (1869).

²¹ The bill was not passed until 1867.

²² The commission was not set up for a different session. Assembly and Senate resolutions came out a distinctly "weak" commission, which became later a "refuge of incapable politicians."

²³ See J. H. Jones, "The Gas Supply of Boston," in the *Quarterly Journal of Economics*, Vol. 1, No. 1, 1900, pp. 1-15.

²⁴ See note on the first of the report.

²⁵ The recommendations are as follows (verbatim):

Report of the Commission.

1. The establishment of a board of lighting commissioners for the city of New York.

the committee, attempted to enforce "greater freedom for the incorporation of gas companies, with a view of securing competition", while Governor Hill vetoed the bill creating "a commission of three members to control the gas companies of New York City" because the powers proposed were too drastic and the jurisdiction provided not state-wide.²⁶ In 1887 he recommended an advisory commission, state-wide in authority, "to be maintained at the expense of the gas companies". In 1889 and in 1891 he recommended a state commission to supervise gas, electric light, telephone, and telegraph companies. In 1901 Governor Odell recommended the placing of gas and electric light companies under the Railroad Commission.

It is evident that the movement for expert commissions to regulate municipal public services was almost synchronous with the movement for railroad commissions; without denying the influence which the success of railroad commissions had upon the movement, it still seems somewhat far-fetched to say that "the state public utility commission has been an evolution from the state railroad commission".²⁷

2. Authority to such board to ascertain and certify the cash capital actually paid in by the bondholders and stockholders, and a limitation of dividend to ten per cent on that amount, and the right of further increase in stock for bondholders and consumers.

3. Authority to such board to supervise the conduct of such companies, and receive and investigate complaints made by consumers.

4. A reduction of the present price of gas to ten per thousand feet with power to such board to further reduce the price as the circumstances may warrant.

5. Annual reports of the earnings, disbursements, gas manufactured, sold, and such other facts as will give publicity to the transactions of such company.

6. Prohibition against further increase of capital stock, and limitation upon the power to issue bonds or mortgages.

7. A fixed standard of the state and ultimate power of gas, and a careful record of the same, and the pressure employed.

8. Prohibition against the laying of pipes in the streets by companies other than those now entitled, without consent of the board of lighting commissioners and the Legislature.

These recommendations have been embodied in a bill, which, with the evidence on which these conclusions are based, accompanies this report.

EDWARD B. THOMAS,
FREDERICK S. GIBBS,
JAMES DALY,

Committee.

²⁶See Annual Report of the First District Commission for the Year Ending Dec. 31, 1907, vol. 1, pp. 451-52, in appendix J. This appendix contains a brief résumé of "The History of State Regulation in New York."

²⁷C. L. King, *The Regulation of Municipal Utilities* (1912), p. 253. The creation of the Massachusetts Board of Gas and Electric Light Commissioners was the counsel of despair of the Boston Gas Company. In New York an inefficient Railroad Commis-

From 1885 to 1907 the feasibility of having state commissions to regulate municipal and other public utilities was discussed, indeed, but no action was taken.²⁸ The municipal ownership propaganda held the center of the stage right up to the year 1907. In November, 1906, Mr. J. W. Garner wrote: "A steady expansion in the scope of municipal functions is clearly evident,"²⁹ and it is true that some states were empowering cities to municipalize certain public service industries.³⁰ But, on the other hand, state legislatures were intervening directly in local public service affairs, and were extending the powers of state supervisory boards over not only such industries but over municipalities themselves, and this was the more fruitful movement.³¹ It may justly be said that the creation of public service commissions in New York and Wisconsin in 1907 was only one step in advance upon a known road.³²

In 1902 the gas companies in New York City became intractable and almost insulting, and the people were aroused to great anger against the combine and its friend, Tammany. In 1905 a joint legislative committee, headed by Frederick C. Stevens and counselled by Charles E. Hughes, investigated affairs and found conditions deplorable. The committee's report pointed out especially the failure of competition to prevent exorbitant rates and overcapitalization,³³ and it advised regulation by a permanent state commission. The legislature reduced prices somewhat and created an advisory Commission of Gas and Electricity, which existed July 20, 1905 to June 30, 1907.

²⁸ Failed to be drafted to make room for the Public Service Commissions in 1907. However, in Wisconsin the limits of public service regulation were given (1907) to the Railroad Commission.

²⁹ "What interesting discussions coming about the year 1900, see E. W. Bemis, *Municipal Ownership* (1894); by Arthur L. S. Ross, in the *Annals of the American Academy*, vol. 19, 1906, 1907, in supplement of 1908; A. R. Foster, *Municipal Public Service Industries* (1899).

³⁰ *Quintessence of Public Service History* (Nov., 1906), vol. 1, p. 100.

³¹ "State Commissions: Legislation" in the *American Political Science Review* for 1906-1907, 1908.

³² *Ibid.*

³³ See an editorial in *Engineering News-Record* (June 12, 1907), vol. 57, p. 985.

³⁴ The liquidation of franchises and good-will values was particularly pointed out. Franchise had been sold the same for more satisfactory the Consolidated company had "liquidated" its city franchise the public. The best account of the events reviewed in this paragraph see R. C. Maurice, *Annals of the American Academy* (June, 1906), vol. 20, 1906-1907. Annual Report of the Public Service Commission for the First Year (1907), New York, Dec. 31, 1907, vol. 1, pp. 451-52.

After some investigation this commission advised that the price of gas in New York City be reduced to eighty cents; this became law,³⁴ but the Consolidated Gas Company prevented its enforcement by an injunction.³⁵ The reform wave was strong in New York that year, and this blocking of the legislature's will had considerable influence in putting the people behind Charles E. Hughes, whose success in the gas and insurance investigations had made him a popular candidate for governor, and who now advocated regulation of public services by powerful commissions. The election put him in office and gave him a legislature ready to do what the people desired. Within six months the notable Public Service Commissions Law had been passed.³⁶

The bill was drawn by Mr. Alfred R. Page, of the Senate, and Mr. Edwin A. Merritt, Jr., of the Assembly, assisted by Governor Hughes and his counsel, Dean Ernest W. Huffcutt. The ultra-democrats, the Hearst papers, and the corporations found equally good, though somewhat diverse, reasons for opposing the bill, the latter having a special publicity bureau. But in the end the bill, amended for the better, passed almost unanimously, becoming law June 6, 1907.³⁷ It went into effect July 1, and in the meantime Governor Hughes appointed the ten commissioners without yielding to any political demands,³⁸ and without reappointing any of those "incapable politicians", the former railroad commissioners, who, together with the rapid transit commissioners, the inspector of gas meters, and the gas and electric light commissioners, found themselves deprived of office by the act.

II. PROVISIONS OF THE LAW

The Public Service Commissions Law of New York was amended in 1910, 1911, and 1912, but the amendments have not been of great importance save that in 1910 the Second District

³⁴Laws 1906, chap. 123.

³⁵See "Notes on Current Legislation" in the *American Political Science Review* (Nov., 1906), vol. 1, p. 98.

³⁶Besides the official message and the newspaper accounts, editorials in the *Nation*, vol. 84, the *Outlook*, vol. 85, and *Engineering News*, vol. 57, p. 300, throw interesting side-lights on the passage of the bill.

³⁷Without the acceptance of New York City, however.

³⁸See editorial in the *Nation* (Jan. 30, 1908), vol. 86, p. 94.

Commission was given jurisdiction over all telephone and telegraph companies in the State.³⁹ The law as herein described is "As Revised and Amended to Close of Legislature of 1912", and issued in an eighty-page pamphlet by the commissions.⁴⁰ It is a document of about twenty-eight thousand words,⁴¹ and is divided into six chapters.

For purposes of analysis and discussion, this outline will be followed: (1) The organization of the commissions; (2) definition of the duties of public utilities; (3) the powers of the commissions to investigate public service industries and to force them to perform their duties; and (4) procedure before the commissions, and court review.⁴²

1. THE ORGANIZATION OF THE COMMISSIONS

Conditions in New York State are unique. Over half of its people are in one great urban district, and the whole state has over four times the population of Minnesota in not much over half its territory. The needs of the Greater New York district are distinct from those of the rest of the State. Recognizing these facts, Governor Hughes and the legislature of 1907 created two commissions, one for this great urban district, the other for the up-state district, with a careful division of authority. The First District (New York City) includes the counties of New York (the city), Kings, Queens (on Long Island, embracing Brooklyn), and Richmond (Staten Island). The remainder of the State, including the most of Long Island, is designated the Second District, popularly the Up-State District. The First District Commission has its headquarters in New York City, the Second District Commission in Albany.

The jurisdictions of the commissions are not absolutely controlled by the boundary line fixed between the two districts. There is a very complex arrangement involving overlapping on both sides, but the whole is strictly harmonious.⁴³

³⁹ The Commission is not given the power of regulating telephone rates, although technically there may be some exclusively in the first district, and some in the Second District Commission.
⁴⁰ Issued by the author through the State Printing Office.
⁴¹ Issued by the author.

⁴² This outline has the sanction of E. H. Downey, and is practically founded upon his *Public Utilities of New York*, Vol. II, pp. 1-100.

⁴³ See, for example, the attempt to jerry-mand in con-

Each commission is made up of five members, appointed for five years, at salaries of \$15,000 per year each. The term of one member of each commission expires each first day of February. The governor appoints the commissioners "by and with the advice and consent of the Senate" and may remove any commissioner "for inefficiency, neglect of duty or misconduct in office" after a formal hearing. Each commission appoints a counsel at \$10,000 per year, and a secretary at \$6,000 per year, whom the commission may remove at will. Each commission has power to appoint additional officers and employees and to fix their salaries. The commissioners must be residents of the districts in which they serve. No commissioner or employee of a commission shall hold stock or bonds in, or have any official relations with, or solicit or receive any favors from, any public service corporation under the act. The offices in New York City and Albany must be open from 8:00 A. M. to 11:00 P. M. "every day in the year" with responsible officers in charge. All the expenses of the Second District Commission are paid from the state treasury; the salaries of the commissioners, counsel, and secretary in the first district are paid from state funds also.⁴⁴ For the remainder of its needs the First District Commission must make requisition upon the Board of Estimate and Apportionment of the city of New York, and, if the requisition is not paid, "may apply to the appellate division of the supreme court in the first department . . . to determine what amount shall be appropriated (for the purposes specified in the requisition) and the decision of said appellate division shall be final and conclusive."

2. THE DUTIES OF PUBLIC UTILITIES

The laws creating public service commissions in the various states contain also codifications of the common law and other duties imposed on those industries "clothed with a public interest". The states differ markedly in the number of industries which are put under commission control, but all say to the in-

⁴⁴Under former jurisdiction in the commission. The commission of the First District Commission has certain powers of commission amplifying the law in the matter of conflicting jurisdictions. See the Annual Report.

⁴⁵The First District Commission receives, then, only \$6,000 from the state treasury.

industries affected that certain things they must do, while certain other things are tabooed. The various classes of industries under the New York commissions differ somewhat in both the negative and positive duties laid upon them by the law.

Railroads, street railroads, and common carriers shall provide safe and adequate, just and reasonable service and facilities, and shall charge therefor only just and reasonable prices. Side-tracks must be constructed where safe and reasonable, tariffs must be published and kept on file; discriminations in prices or service, or unreasonable preferences to some persons over others are prohibited; passes are prohibited, except to employees, but commutation tickets, special rates to children under twelve and to school children, and similar special rates are not necessarily illegal.⁴⁵ False billing is prohibited; a reasonable number of cars for car-lot shipments must be furnished on demand; a short haul must never cost more than a long haul within which it is contained if in the same direction; annual reports must be filed with the commission; and notice of accidents shall be given promptly in a prescribed form.

Gas and electric companies, and municipalities operating plants, shall furnish safe and adequate, just and reasonable service and facilities, at just and reasonable charges, and special rates, rebates, and all similar devices of discrimination are forbidden. However, sliding scales may be established.

Likewise every telegraph corporation and every telephone corporation shall provide adequate, just, and reasonable instrumentalities, facilities, and services at just and reasonable charges. Rebates and other discriminations of all kinds are prohibited. All schedules of rates and charges must be printed and filed with the commission.

It will be seen that most of these commands and prohibitions are restatements in statute form of old common law principles, and that the terms of the common law are used. The enactment of these principles in statute form creates the assumption that each company affected will at once make all its rates and services just and reasonable. Formerly an unreasonable rate could be lowered only by a special law or after court proceed-

⁴⁵ This rule was modified by an amendment passed in 1911 to remove a former restriction on the number of cars furnished. Laws 1911, chap. 540.

ings. Now it is a punishable offense to continue to collect a rate declared unreasonable by the commission.

3. POWERS OF THE COMMISSIONS

Having created the two commissions, and clearly restated the duties of public utilities, the New York law proceeds to vest the commissions with adequate means and power to enforce compliance with the law. The great difficulty had been that no authority adapted to the work of enforcing the common law duties of these corporations had existed. This defect the Public Service Commissions Law of New York and that of Wisconsin of the same year came forward to remedy. It is clear that Governor Hughes and the New York legislature intended that the law should be enforced. Not only were the commissions lavishly provided with funds, but they were also given very broad powers.⁴⁶

Each commission, within its jurisdiction, has power to examine all the properties and to investigate all the affairs of rail roads, street railroads, and common carriers, to examine their books, contracts, and other documents, to require that the annual reports have a certain form, and that additional reports be given. The commission may also require that every accident be reported immediately in a certain form, that complaints of aggrieved persons be satisfied, that physical connections and joint rates be established where reasonable, that the transfer privilege be extended, that repairs and improvements be made, that time schedules be changed, and that accounts be kept in a prescribed form. Besides, the commissions have power to, and must, fix reasonable maximum rates, and order reasonable and adequate service.⁴⁷ No new road can be built, or old one extended, or any franchise whatever exercised without the permission of the proper commission. The commissions have complete control of

⁴⁶The powers of the commissions are given in considerable detail, and it is impossible in this paper to give more than a brief outline.

⁴⁷Throughout the law it will be found that some powers are permissive and others are obligatory upon the commissions. In a matter like this one of fixing a reasonable rate, it is clearly illegal that an unreasonable rate should stand. Therefore, if the corporation has not itself complied with the law, it is clearly imperative that some one put the legal principle into effect. A law can not be obeyed or disobeyed at will. On the other hand, in the matter of uniform accounts, special reports, and similar matters, the power of the commissions are largely permissive.

the transfer of franchises and stocks, and the acquiring or holding of stocks by one corporation in others under their jurisdiction. No stocks or bonds or other paper may be issued by these corporations save for certain specified purposes, and then only after the proper commission has given permission. Reorganizations of corporations are completely within the control of the commissions.⁴⁸ Should a railroad or street railroad corporation, or a common carrier, violate any part of the law, or refuse to obey an order issued by a commission, a forfeiture of not over \$5,000 can be enforced for each offense in any proper court. Minor forfeitures are also provided, and summary proceedings may be begun by a commission in the state supreme court whenever the commission has reason to believe a subject corporation is violating the law or disobeying an order.

Over gas and electric corporations the commissions have similar powers. Rates, service, repairs, new capitalization, reports, uniform accounts, reorganizations, the exercise of new franchises, and transfers of franchises, are strictly subject to control by the proper commission.⁴⁹ The inspection of gas and electric meters is made obligatory upon them. The maximum forfeiture for violating the law or disobeying an order is \$1,000 for each distinct offense. Summary proceedings are provided for.

The Second District Commission has over telephone and telegraph corporations the same ample powers as both commissions have over gas and electricity companies. The forfeiture is the same; provision is again made for summary proceedings.

In carrying out these various powers, individual commissioners may make investigations, subpoena witnesses, and administer oaths.

4. PROCEDURE BEFORE THE COMMISSIONS, AND COURT REVIEW

The commissions may make investigations on their own initiative, and some important ones have been so made. Many other matters come before the commissions on complaints of citizens who ask relief, and on requests of corporations for power to

⁴⁸ *See* *Anderson*, *loc. cit.* 101. "In addition, the commission, or courts, 'save where the courts have jurisdiction, may require the corporation to obtain the permission of the commission before beginning to build a municipal plant."

do certain things requiring special permit. Many matters need no formal handling, but can be disposed of by correspondence or over the telephone. Even in formal cases a single commissioner may make an investigation, and his finding becomes that of the commission when approved by the commission.

The commissions are not bound by any rules of evidence; each has, under the power given it by law, made certain rules of procedure. Witnesses may be subpoenaed and paid for their services. If any witness refuses to come, he can be compelled to show cause within five days before the nearest supreme court justice, who may commit him to jail if no good cause is shown for his refusal to testify. Witnesses are immune from punishment in any matter to which they have themselves testified, but corporations can not be in this way made immune.

Orders are served by delivery in person or by mailing to some responsible officer of the firm concerned, and the company must reply within a specified time as to whether or not it will obey the order. Under any circumstances, the order takes effect on the day specified. Rehearings may be granted, but the original order continues in effect until abrogated.

Whenever a commission brings suit in a New York court, the action has precedence over every other civil action except election causes. The same right may be insisted upon in any action in which the commission is defendant or in which it has intervened through its counsel.

The right of court review of any action of a commission is tacitly recognized throughout the law.

III. THE WORK OF THE NEW YORK PUBLIC SERVICE COMMISSIONS

1. THE FIRST DISTRICT COMMISSION

The work done by the First District Commission is authoritatively reported in two publications, the *Proceedings*, and the *Annual Reports*, running already to a considerable number of volumes. In addition the commission decided in 1911 to issue thereafter special volumes reporting the decisions.⁵⁰ There are,

⁵⁰*Annual Report Commission*, vol. 1, pp. 6-7.

166, a number of valuable official and semi-official summary statements of the work.⁵¹

In 1911 the commission had under its jurisdiction ninety-seven corporations with a total capitalization of \$1,124,342,471. Of these fifty-eight were street railway companies, and six steam railroads, having 1,038.5 miles of track, and carrying 1,603,908,253 passengers during the year.⁵² Thirty-two corporations were engaged in the gas and electricity businesses, their gross receipts being over fifty-seven million dollars in 1910, or twelve dollars per capita as compared to over sixteen dollars per capita collected by transportation companies.⁵³ In other words, each family of five in New York City pays to public service corporations over one hundred and forty dollars annually, yet the family average is only forty cents per year for the support of the commission which supervises the corporations.⁵⁴

In the year 1911 the commission had before it 228 formal cases, in 166 of which decisions were given that year. It had also to consider 1408 informal cases, of which 680 were satisfactorily settled or covered by a previous case, 266 were ill-founded, 42 were outside the jurisdiction of the commission, and 420 were not acted upon, no defect appearing worthy of action.⁵⁵ This shows a considerable decrease from 1908, when 3,000 complaints concerning rapid transit matters, and 9,000 concerning

⁵¹Such as J. B. Walker, *State Regulation of Public Service Corporations in the City of New York* (September, 1911); *Dual System of Rapid Transit for New York City* (September, 1911); M. R. Mott, "The Forms of Public Regulation in New York," in the *Annals of the American Academy* (January, 1911), pp. 170-190; R. H. Whitten, "The Work of the Public Service Commission for the First District, New York," in C. L. King, *The Regulation of Municipal Utilities* (1912), pp. 341-76.

⁵²Annual Report, 1911, vol. 1, p. 11. These figures represent an increase of passenger miles of track, and numerous passengers over the year 1908. The commission had before its jurisdiction also about forty corporations which were dormant, inactive, etc., and there was one stage-coach company.

⁵³*Ibid.*, p. 10.

⁵⁴The one hundred and forty dollars per year includes only what each family pays to the gas and electric corporations, and for gas and electricity. Telephone, telegraph, and other service charges are included. The cost of supervision in 1911 amounted at \$400,000. The First District Commission was formerly much criticized as a "million-dollar experiment", but although the annual budget is over a million, three-fourths of the time and three-fifths of the expenditures of the commission are absorbed in road, water, and railway engineering work. See Walker, *State Regulation*, etc., pp. 11-12.

⁵⁵Annual Report, 1911, vol. 1, pp. 241-2.

gas and electricity were received.⁵⁶ Complaints are turned into formal cases only when of sufficient importance and supported by enough testimony to make their settlement quite certain and worthy of complete record. The vast majority of cases are disposed of without formal hearings and orders. If a case can be adjusted by letter, telephone, or personal consultation, it is closed.⁵⁷ Of the formal cases handled in 1911, seventy-seven were applications of various kinds, thirty were cases on complaint, and one hundred and twenty-one were on motion of the commission.⁵⁸ Most formal hearings are held before a single commissioner.

Governor Hughes' first message had called attention to the terrible condition of the rapid transit service in New York City. On taking office the commission began at once an investigation of the surface street railway companies, and by May, 1908 had traced the history of each company and charted their intercorporate relations.⁵⁹ It was found that the New York City Railway Company had control of the whole system, that millions had been wasted or taken by certain officers on various pretenses, that extortionate amounts had been paid for leases, that the whole system was honeycombed with the rot of high finance. The investigation was just getting well under way when a federal court appointed temporary receivers for the New York City Railway Company, and the commission has been handicapped in its control of the properties ever since.⁶⁰ Nevertheless, improvements in service and rate reductions have resulted from the investigations and orders of the commission. Old lines have been extended, new lines built, longer trains run in the subways, side doors, wheel guards, and successful fenders installed; "rattling" cars have been repaired, improved cars bought; the crowds in the "rush hours" have been provided for; and all companies have been ordered to operate enough cars to give ten per cent more seating capacity than normal traffic requires. The results have not always included a decrease of revenue to the com-

⁵⁶Estimated by the commission, Annual Report (1908), vol. 1, pp. 14-15. No doubt the 9,000 include a large proportion of meter complaints.

⁵⁷Milo R. Maltbie in *Annals of the American Academy* (January, 1911), p. 178.

⁵⁸The applications mentioned are for the issue of stocks and bonds, for certificates of convenience and necessity, for the exercise of franchise rights, etc.

⁵⁹Annual Report (1907), vol. 1, pp. 128-39; Annual Report (1908), vol. 1, pp. 22-25.

⁶⁰Annual Report (1907), vol. 1, pp. 132-37.

panies, for the service has been so systematized and traffic so increased that a number show increases of net earnings, the better service having increased the fares collected per capita by thirty per cent, from 305.4 in 1907 to 335.6 in 1910-11.⁶¹ This increased revenue is serving to put the bankrupt lines again into a state of solvency, while the improved service, the extensions of the transfer privilege, and the decrease in the number of fatal accidents would almost alone seem to justify the labors of the commission.⁶²

"The rapid transit construction work of the Commission, while not so varied as the functions of regulation, consumes about two-thirds of the annual appropriation, not including the cost of construction itself."⁶³ This phase of the commission's work is of great importance, but as it is not strictly a part of the work of regulation of utilities, there can be no discussion of it here. It must be noticed, however, that government efficiency in the construction of a great public service system is being given a notable test—that if this great system becomes an ultimate success, the praise can not be given to any private corporation or to the corporate form of organization, but must be given to a public authority.⁶⁴ And further, it may be true that this work has put too large a burden upon the commission, and that it is prevented from doing the best possible regulative work by this over-plus of engineering problems.⁶⁵

The local transportation question so overshadows other problems the commission has to solve that its regulation of gas and electric companies, although a work of large proportions, assumes a distinctly secondary place. These companies have a capitalization of about four hundred millions, annual sales of over sixty millions, and in 1911 they had 1,289,865 gas meters alone in use, an increase of 200,000 since 1907.⁶⁶ In the first four years the commission made 1,378,627 meter tests; every new

⁶¹ *Minnesota Year Book*, 1911, 100-101.

⁶² In 1908 the death rate from accidents caused 41 deaths by accidents; in 1909 there were 26; in 1910, 25; in 1911, 24; in 1912 only 21. *Minneapolis Tribune*, 1914, 1.

⁶³ *Id.*, 1911, 99-100.

⁶⁴ See the value of the corporate form of organization in Herbert Croly, *The Promise of American Life*, 1909, 208-209. This matter will again be referred to.

⁶⁵ Some commission members have suggested such work. See letter to the Minneapolis Tribune, dated in 1907 by William D. McKim.

⁶⁶ *Id.*, 1911, 99.

meter is now tested; no meter untested for seven years may be used; and considerable sums of money have been repaid by the companies where defects were found over two per cent, the maximum allowed for gas meters. The commission claims little of the honor of the eighty-cent gas case, but it has brought about some reductions of importance by the Edison Company and the Queens Borough Company. The commission has been markedly conservative in the reduction of rates, and it is claimed that the Edison Company still makes twenty per cent on its investment.⁶⁷

Some of the most valuable work of the commission has been in the control of capitalization. Up to December 31, 1911 applications had been made for the right to issue stocks and bonds to the value of \$383,045,685, and of this only \$103,508,219 was authorized.⁶⁸ Some companies, when refused authority to issue new capitalization, have appealed to the courts, and the latter have in several cases forced the commission from the advanced stand it has taken, and have held that corporations going through the formalities required by the Stock Corporations Law can not be prevented from issuing whatever amount of new capitalization they deem fit.⁶⁹ In passing on issues of stocks and bonds, the commission opposes the capitalization of franchise value, but finds itself partially prevented by law from enforcing this principle. "The Commission believes the proposition to be sound that capitalization should have a direct relation to the value."⁷⁰ The principle of physical valuation has not been adopted, and in 1911 the commission reported that a basis of valuation had "not been finally determined, but there can be no doubt that the nominal capitalization, as represented in stocks and bonds, has in most cases made its influence felt".⁷¹ The careful control the commission keeps of capitalization, and its constant insistence upon proper accounts and frequent reports—matters which deserve longer treatment than they can receive here—will surely have a tendency to prevent such financial operations as brought on the receivership of the street railway system in 1907.

⁶⁷W. D. Marks, letter to the *Minneapolis Journal* (April 3, 1913).

⁶⁸Annual Report (1911), vol. 1, pp. 155, 172. Some applications were still pending.

⁶⁹R. H. Whitten, in C. L. King, pp. 368-70; Walker, pp. 45-48; Maltbie, pp. 184-87.

⁷⁰Maltbie, p. 185.

⁷¹Annual Report (1911), vol. 1, pp. 153-54.

2. THE SECOND DISTRICT COMMISSION

The Up-State Commission does not publish its proceedings as does the First District Commission. Its work is reported in the Annual Reports, consisting usually of two volumes each year, and in the Reports of Decisions, issued from time to time as the pamphlet reports accumulate. There are also authoritative brief statements of its work.⁷²

The Second District Commission has a jurisdiction very similar to the jurisdictions of other state commissions. Railroads are the really big problem for this commission, while the telephone and telegraph companies are probably next in importance. In 1911 this commission had under its control nine hundred and forty corporations, including forty-eight municipalities operating electric and gas plants.⁷³ The railways in the district have 17,743 miles of track, street railways, 4,700.⁷⁴ In 1907 it was estimated that railroads of all kinds had a value of two billion dollars, gas and electricity companies five hundred millions, and to these must now be added the telephone and telegraph companies, capitalized at eight hundred millions. To defray the expense of supervising all these wealthy public utilities, the commission had drawn from the state treasury up to September 30, 1911, \$1,222,492.01,⁷⁵ or about seven cents per year from each resident in the district.⁷⁶ The commission finds it necessary to maintain a very large and complex organization composed now of six departments and a general office.⁷⁷

⁷²See J. S. Kennedy, "The New York Public Service Commissions," *Forum* (Nov., 1912), vol. 47; George R. Grant, "The New York Public Service Commission for the Second District," in C. L. King, *The Regulation of Municipal Utilities* (1912), pp. 326-41.

⁷³These corporations are not all operating; some are lessors to others; some are inactive. Of the whole number, 184 are street-railway corporations, 124 street railway corporations, 7 express companies, and so on. There is duplication in the list counting 32 street-railway corporations. *The Annual Report* (1910), vol. 1, pp. 7-8.

⁷⁴J. S. Kennedy, *Forum* (Nov., 1912), vol. 47, pp. 587-88.

⁷⁵This was less than \$300,000 per year save in 1910, when the new jurisdiction over telephone and telegraph companies raised the amount to \$342,739.

⁷⁶A rough maximum computation. Of course, New York City pays a large share of the cost.

⁷⁷*The Annual Report* (1907), vol. 3, p. 100. The divisions of telegraph and telephone are under the commission. The others are: the general office, division of light, heat, and power, division of statistics and accounts, and the three railroad divisions of tariffs, traffic, and engineering and inspection.

In five years the commission dealt with 10,000 matters brought to its attention.⁷⁸ In 1911 it disposed of 2,242, including 258 applications, 314 formal complaints, 1,593 correspondence complaints, and 77 orders to show cause, etc. There were 572 public hearings, occupying 285 days.⁷⁹ The commission aims to settle everything informally if possible, and no communication goes unanswered.

A great part of the work of this commission lies in the regulation of railroads. In this work the commission has opened a new era for New York, but since the regulation of railroads has been going on for years elsewhere and is well understood, there is little need of giving it an exhaustive examination here. It is not essentially different from other regulative work. As summarized by Mr. Kennedy, the work done in regulating railroads has consisted in improving the freight service, especially at Buffalo, where a branch traffic bureau has been established; in recording all late passenger trains and forcing the railroads to give more and better service; in examining roadbeds, tracks, and equipment, and ordering improvements where needed; in preventing forest fires in the Adirondacks by making the railroads use oil burning locomotives in that region; in publishing rates, especially rate changes; and in refusing permission to make new grade crossings. It is interesting to note that the law requires that tariff schedules shall be as nearly like those required by federal law as possible, and that the commission has agreed with the commissions of Ohio and Pennsylvania on uniform boiler requirements. In this way, some objectionable features of state regulation have been avoided.⁸⁰

Grade-crossings demand special attention. A law of 1897 pledged the State to pay one-fourth of the expense of eliminating grade-crossings.⁸¹ The municipalities were to pay one-fourth, the railroads one-half. From 1897 to 1907 no great advance had been made in carrying out the intent of the law.⁸² In 1907 the administration of this statute was put into the hands of the

⁷⁸Kennedy, *Forum* (Nov., 1912), vol. 47, p. 588.

⁷⁹4th Annual Report (1907), vol. 1, p. 1006.

⁸⁰The Public Service Commissions Law, revision of 1907, §28; 4th Annual Report (1907), vol. 1, p. 81.

⁸¹Laws of 1897, chap. 734.

⁸²1st Annual Report (1907), vol. 1, pp. 103-14.

commissions, and the Second District Commission has since tested some new safety appliances, temporarily protected some old crossings, removed others, while at the same time it has effectually prevented the making of new grade-crossings.

When the commission was given jurisdiction over telephone and telegraph companies in 1910,⁸³ it immediately asked for information from all those then listed on the tax rolls to ascertain which ones properly came under its control, for by law only those telephone companies having property worth \$10,000 or more used in the public service can be regulated by the commission.⁸⁴ It found ten telegraph companies; but only 135 of the 1,106 telephone companies listed seemed to come within the phrase of the law.⁸⁵ By just a little investigation the commission unearthed a great deal of discrimination in telephone rates,⁸⁶ but it was handicapped in the abolition of these by a section of the law validating existing contracts.⁸⁷ However, it proceeded with its investigations, especially in New York City, where the inter-borough tolls were the cause of much complaint. June 1, 1911, the commission ordered a reduction of the inter-borough rate from ten to five cents, a reduction which "affects more than thirty million messages annually".⁸⁸ The commission continues to investigate central offices and to correct all complaints possible concerning service, and has apparently only begun its work in this field.

Gas and electric corporations are kept under constant surveillance and changes in service and rates are frequently ordered.⁸⁹ Two interesting phases of this work are the attitude of the commission toward competition, and the regulation of municipally owned plants. The law does not prohibit competition, and the commission has found a good emergency weapon in this fact. To be sure, competition is very expensive in the end for the users of the service, but when a company already in the field wholly

⁸³ Laws of 1910, ch. 684.

⁸⁴ Revised Laws of 1911, § 1, paragraph 12 and 13.

⁸⁵ See the report before the Annual Report 1910, vol. 1, p. 8908.

⁸⁶ In the case of New York City, 11,000 of 117,000 users of the service were under old contracts, involving an annual discrimination of \$284,000.

⁸⁷ See among the new laws passed, Laws of 1911, chap. 420.

⁸⁸ *Financial Review*, 1911, vol. 4, p. 590.

⁸⁹ Among the various acts and official statements may be found in the annual reports, made by J. L. Brown before all kindred interests and printed as appendices to the text of the reports.

refuses to give satisfactory service, a new, competing company seems to be the only solution of the problem. In the case of the Niagara Falls Lighting Company,⁹⁰ permission was asked by the applicant to compete with the established company in the city of Niagara Falls, but the application was denied. In this case the commission reviewed its previous decisions, in several of which competition had been allowed for the reason that the existing companies had failed and continued to fail to give proper service. Under such circumstances the commission held competition advisable. But in the case under consideration, as in others, the existing company was already giving reasonably good service and was willing to make needed improvements. Therefore the commission favored monopoly in this and similar cases. It held that competition is always wasteful and never permanent, and the burden was on the applicant to prove that competition in any particular case was justifiable.

In the matter of controlling municipal plants, the commission has been firm in insisting on better accounts. Municipal plants were found to be especially weak in this matter, with the result that the actual cost of the service was never known. In this work the commission really acts within a narrow field as a state department of municipal efficiency.

The conservative stand taken by the commission in its control of accounts has brought it some reproach from at least one student.⁹¹ It has insisted upon improved accounts, such as will show depreciation items and replacement charges properly entered. But it has not been radical in its ideas or drastic in its orders, reflecting thus the conservatism of the State. Volume 2 of the 1908 report is entirely given over to uniform systems of accounts for the various utilities regulated, and the commission has since prepared similar accounts for telephone and telegraph companies.⁹²

Capitalization has received special attention from the commission, particularly new capitalization.⁹³ Every application is care-

⁹⁰Reports of Decisions, vol. 1, pp. 166-67. Denied July 1, 1906.

⁹¹E. H. Dewey, *Regulation of Public Utilities in New York*, p. 37. Mr. Dewey hardly gives the New York commission sufficient credit for their work. He has been much more impressed by the Wisconsin Railroad Commission and the results it has obtained.

⁹²Work on uniform telephone accounts was begun in 1909. See Annual Report (1910), vol. 1, p. 97.

⁹³Dewey, pp. 97-98; Kennedy, pp. 9-10. Old capitalization has also been examined with an eye to relieving it of water.

fully examined and tested in the light of the provisions of the law which specify the few purposes for which stocks and bonds may be issued. The commission feels that rates can not be made and kept just and reasonable while stock is being watered. Up to the end of 1910, three hundred and eleven permits had been granted, authorizing over four hundred millions in new capitalization, mostly to railroads.⁹⁴ A considerable number of applications had also been denied.⁹⁵

Reorganizations, too, are now controlled by the commission, this being a power given the commission in 1912.⁹⁶

In concluding this discussion, it must be said that the commission has been fairly conservative, and wisely and fortunately so. It has never taken any new position without being wholly sure of its ground; but when it has taken a step it has been able to stand firm. It has not made general rate reductions; it has not adopted the idea of physical valuations as the only basis for rate-making; it has not destroyed. The result is satisfaction with its work on the part of both the people and the corporations.

IV. GENERAL RESULTS OF COMMISSION CONTROL

The jurisdictions of the two New York Public Service Commissions are essentially different. One is trying to solve the public service problems of what will soon be the greatest city on earth; under its jurisdiction are a small number of very large gas, electric, and rapid transit companies—all municipal utilities. The other has under its supervision a great number of small local utilities, a considerable number of which are municipally owned. The former has no control over telephone and telegraph companies, and almost none over railroads and other common carriers. The latter combines the functions of local utilities control with the task of supervising railroads and the state-wide communication services. Yet despite marked differences in jurisdiction, the commissions have both had part in the production of certain results of very great importance.

⁹⁴ *Annual Report*, 1910, vol. 1, pp. 68-69.

⁹⁵ See the heading "Capitalization" in the Reports of Decisions, vol. 1, 1910; vol. 2, 1911. Most denials of such applications are reported as formal cases.

⁹⁶ *Law of Public Utility*, 289.

The practical objects for which the commissions were created have been in large part attained. Service has been improved, prices have in many cases been reduced, stock-watering has been prevented, avoidable accidents have been reduced in number. The service corporations no longer invade the individual's right to life, liberty, and property as before. Nevertheless this work has just begun, and it can not yet be said that all men are wholly satisfied with the conservative attitude of the commissions.

The New York commissions are both great research laboratories, and they are gathering continually exact information about the history, financial status, and management of the various corporations under control. Expert assistants are constantly improving methods of operation and management for the utilities. This information is published and distributed to all who are interested. The public is being educated and the corporations are being taught greater efficiency, and these two results are truly of great value, though they go almost unnoticed.

Competition between two gas companies or rapid transit companies in the same city always produces poor service and high rates. Such competition is destructive. Public service commissions are able to enforce a new kind of competition which is constructive and makes for efficiency. By keeping constant watch of every company under control and by publishing detailed reports of all, together with comparative tables, the New York commissions are forcing corporations to improve service, to check waste, and even to reduce prices. A new type of manager is beginning to appear: one who knows that profits are assured when the public is well served and pleased, and who, therefore, is striving ever to improve the service and even to lower prices. Uniform accounts, frequent reports, and published comparisons are bringing about a rivalry for efficiency between utilities separated by half the state, and this is a sort of constructive competition whose aim is not so much high profits as efficient service.

Accompanying these results there has been the birth of a new attitude of the public toward the corporations, and of the corporations toward the public. The intense animosity of the public to utilities corporations has somewhat declined, and amicable relations are becoming more and more a reality.⁹⁷ The corporations

⁹⁷Cf. Maltbie, p. 179.

in New York as elsewhere have been learning to assume an entirely different attitude toward the public during the past thirty years. In the early eighties corporations almost unanimously resented "interference" by the public in their "private affairs", and told the public to mind its own business. To-day the service corporations realize that they are public servants, and are beginning to go out of their way to please the public.⁹⁸ This is not by any means all due to the work of the commissions, but it is notable that in working out the new policy, corporations find public service commissions the best go-between for them and the public.⁹⁹ In fact, corporation support has been given to the movement to create public service commissions elsewhere to such an extent that sinister designs have been charged, and the movement temporarily defeated in some states. And this leads us to ask the question: Has control by commissions removed public service corporations and the public service problem from politics?

The question has been so far removed from politics that municipal and state elections are no longer fought on this issue. This is an acknowledged gain. But the argument now seems to be that the corporations have not therefore ceased to take any interest in our politics and government; they are, rather, at an advantage now, and by secretly influencing the appointing authority they control the commissions. Proof is hard to get, but circumstantial evidence seems to support the contention. While Governor Hughes, who could not be influenced, held office, the very efficient membership of the First District Commission was kept intact, and the Second District Commission was kept at a

⁹⁸Although local exceptions can be found, this general proposition is demonstrable. Corporations still fight rate reductions, but never with the old arguments. This change from the "the-public-be-damned" policy of William K. Vanderbilt of thirty years ago to the "the-public-be-pleased" policy of Mr. William G. McAdoo of 1909, is very significant, and it has affected the corporations in every public service industry. Cf. L. G. McAdams, "A Controlled Movement of the Railroads," *North American Review*, (Jan. 1911); E. P. Whitford, in the Proceedings of the National Municipal League (1909), pp. 113-14; T. N. Vail, "Public Utilities and Public Policy," *Atlantic* (March, 1908), vol. 111, p. 307.

⁹⁹Mr. Francis Lynde Stetson, a New York corporation attorney, who at first opposed the commission law, writes as follows: "For the protection of . . . over-zealous officers against claims . . . for the protection of superior officers and directors who have no share in the management or unsupervised by any sinister proceedings; for the security of shareholders and respecting stockholders; for protection against corporate fraud . . . against the public, no remedy is comparable to, nor is any more desirable than that of suitable government supervision, through the system of commissions now suitably developing." *Atlantic* (July, 1902), vol. 110, p. 38.

high standard. Governor Dix, however, made a number of changes, and Governor Sulzer is now following in his path. The charge is made that these two governors have used these offices to reward their friends and to open the way for corporation control of the commissions, and there seems to be some truth in the charge. The moral is not, however, that commissions are therefore undemocratic and bad in themselves, but that the electorate must devise some better way of guaranteeing that the governors they choose shall govern for the people.¹⁰⁰

V. THE PROBLEM REVIEWED

1. AN INTERPRETATION OF THE MOVEMENT

State public service commissions have been created so rapidly, and the movement is assuming such proportions, that the problem is being studied with interest everywhere.¹⁰¹ It would be a mistake to look at the movement as a thing apart from the rest of our economic and political progress. Rather, it is only one evidence of the changing attitude of our state governments toward social problems. They are assuming responsibility for social welfare as probably never before.¹⁰² Social welfare legislation is occupying the attention of Congress, and of state and local legislatures in a steadily increasing proportion. State legislatures especially are dealing with these questions, and the state organization, rejuvenated by these efforts, is assuming again the important place it once held in our political system.

¹⁰⁰For the membership of the two commissions up to and through 1911, see Appendix II, at the end of the report.

¹⁰¹The following states now have public service commissions of some kind, and this list, even, is probably not up to date: Arizona, California, Connecticut, Georgia, Kansas, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, New York, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, Vermont, Washington, and Wisconsin. (Drawn from secondary sources.)

The National Civic Federation has been conducting (1912-1913) a very exhaustive investigation of the movement and of the various state laws. Through the kindness of the Federation, and especially of the director of the investigation, Professor John H. Gray of the University of Minnesota, the author was furnished with the Confidential Preliminary Page-proofs of the various sections of the proposed report, and he only regrets that the report has not been published in time to let him make use of it. The work of the investigators has been very generally praised.

¹⁰²One may well hesitate wholly to condemn this government by commission, be cause it is the first emphatic recognition in American political and economic organization of a manifest public responsibility." Herbert Croly, *The Promise of American Life* (1912), p. 361.

One result of this movement is intimately bound up with the matter in hand. Municipal governments seemed, at about the beginning of the present century, to have broken down.¹⁰³ The cry for social legislation was increasing, and something had to be done. Then the state governments began to come forward to meet the new demands, and there was the reassumption by the states of some municipal functions. The power of regulating municipal public services was taken over by the state organization, and even the cities themselves are being subjected to a new control.¹⁰⁴ The states, which through inefficiency or pretended poverty have forced the federal government to take over many state functions,¹⁰⁵ are now re-enacting this drama in the realm of local affairs by taking over duties which local units have failed to perform.¹⁰⁶ The state is becoming a great municipality.¹⁰⁷

In obedience to the new impulse and the new demands, state legislatures are increasing greatly the body of administrative law,¹⁰⁸ and are adding new administrative authorities to enforce and amplify it. These bodies take the form of commissions,¹⁰⁹ and their duties range from that of examining veterinarians, or conserving fish and game, to the regulation of great monopolistic industries, and the Progressive Party but recently advocated a federal commission to control the great national industrial trusts. There seems to be no limit to this movement, and one hardly wonders at finding some men growing fearful at this "government by commissions".¹¹⁰ To them this looks like the beginning of tyr-

¹⁰³See above, p. 10.

¹⁰⁴The question of a state police system is coming up. Municipal accounts are being audited by the state. Municipally owned gas plants, etc., are being regulated by the state. See also the regulation of public utility plants.

¹⁰⁵See H. J. Ford, *The Cost of Our National Government* (1910), pp. 84-85.

¹⁰⁶California seems to take account of her man in this regard and is taking a different course.

¹⁰⁷This process is being hastened by the increase of population, the extension of the lines of traffic and commerce, and a host of other influences, all of which tend to destroy the old and to create a new life.

¹⁰⁸For an outline of some of the classification of law. See his *Jurisprudence* (11th ed. 1910), pp. 370-72.

¹⁰⁹On the history of commissions in our state governments, see F. H. White, "The Growth and Future of State Boards and Commissions," *Political Science Quarterly* (1904), Reprinted in P. S. Reisch, "The History of the State Government," pp. 2-39.

¹¹⁰See the address given by the late Hon. Charles D. Day of Syracuse University in a baccalaureate "sermon" on June 9, 1907: "The distinction between the executive, judicial, and legislative order is disappearing in a form of oligarchy named

anny, while others see in government by commissions of experts a confession that democracy has failed. We may hope that neither is true, but we may as well frankly admit that, despite the fine distinctions drawn by the courts,¹¹¹ the old division of powers into legislative, executive, and judicial is disappearing, that these commissions have duties which are "partly administrative, and partly either legislative or judicial". They do, while enforcing the law, interpret and expand it.¹¹² The Interstate Commerce Commission and the state railroad and public service commissions form a distinct class of regulative tribunals which at different times or even at any one time may appear to the industries controlled as legislature, prosecuting attorney, and court, all rolled into one.¹¹³ Their justification is that they are necessary.

2. LOCAL VERSUS STATE REGULATION

The changed position of cities in the states which have public service commissions has already been observed. These commissions form an important step in the administrative as distinct from the legislative control of cities. Publicly owned utilities are regulated by the state commission in the same way as private plants: the municipality is not immune from this control. In the second place, a law declaring that prices must be reasonable and service adequate practically denies to a municipality the right of contract with public service corporations, and is clearly inconsistent with any assumed right on the part of a city to regulate utilities by ordinance.

Municipal powers are undeniably being limited by state public service commission laws, and to some men this seems entirely wrong. Other arguments for local control are that regulation by state commissions will prevent public ownership when that becomes desirable;¹¹⁴ that the utilities problem is purely a local one:

"commissions". The rates are taken out of the hands of Congress and the legislature and put into the hands of commissions, subject to executive appointment and executive pleasure." See *Engineering News*, June 13, 1907, vol. 57, p. 652.

¹¹¹ Cf. Fries and Mason, *Control of Public Utilities* (1908), pp. 71-74, 83, and especially 82 ff.

¹¹² One need only refer to the great number of decisions and opinions given by the two New York commissions yearly.

¹¹³ These are not like the continental European administrative courts, however, for these American commissions are still subject to review by the ordinary courts.

¹¹⁴ That there is any incompatibility between present regulation and ultimate ownership may be doubted. In Australia, state ownership of municipal utilities has followed

that, given power, the municipality could handle the problem; and that it should be given this authority in order that it may work out its own salvation and educate itself in the ways of self-government. As we have seen, regulation of utilities by city councils was a failure; those who desire local control now look with some favor on municipal public service commissions. Two questions arise, one as to the desirability of local control, the other as to the feasibility of the local utilities commission.

As to the latter we may say that local commissions have almost wholly failed, not only in producing any really important results, but even, in several cases, in maintaining a continuous existence. The interesting origins and eventful histories of these local commissions can not be discussed here.¹¹⁵ Friendly accounts of the three best known local commissions have been published in Mr. C. L. King's volume, *The Regulation of Municipal Utilities*, and these articles alone furnish a sufficient condemnation of this type of commission. Two of the accounts practically admit the desirability of state commissions.¹¹⁶

The argument of success is clearly with the state commissions; logic argues no less powerfully for them. The utilities problem is no longer a local, but increasingly a state problem.¹¹⁷ Efficiency, expertness, and economy are all on the side of state commissions. Railways, telegraphs, telephones, and other utilities, do not present local problems; there must be state commissions for these. Very few cities can give proper financial support to a commission. Local commissions can not be given as broad powers as state commissions; some matters, such as capitalization

state regulation. As in the United States, local street railways extended into the county district and became of importance to the whole state.

The rise of commissions, too, found its genesis in 1897, under peculiar circumstances. In Missouri and California soon followed, just as Missouri led in the home-rule-for-cities movement in 1875, to be followed soon after by California (1879). Of the influence of the state reformers, we find talk instrumental in creating the local commissions of Missouri, and Hughes and La Follette bringing in the state commissions. In C. L. King, *The Regulation of Municipal Utilities* (1912), chap. 11, pp. 111-114, we find the testimony of friends for the public service commissions at Los Angeles, San Francisco, and St. Louis, but these accounts, written in 1912, are almost completely out of date. Denver and other cities have tried or are trying similar commissions.

¹¹⁵See, for example,

¹¹⁶United City Club, for Mr. L. S. Rowe in them. See supplement to the *Annals of the American Academy* (1912), vol. 11, no. 2, in supplement. The question has already arisen whether the problem may not eventually become a federal one; electric power lines, electric gas lines, electric railways, telephones, and telegraph lines already cross state lines in many places.

and reorganizations, must be forever beyond their control. Comparisons with other cities could hardly be made, since each city commission would have its own methods and standards. Local commissions can not keep out of politics, nor can they, finally, educate the electorate or conduct researches as a state commission can.

3. SEVERAL OBJECTIONS CONSIDERED

Other arguments against state public service commissions have been advanced. Those who oppose socialism object to such commissions as socialistic. The socialist, on the other hand, avers that regulatory commissions have been created to delay the coming of his ideal system, and he fears the attempt may be successful. No doubt there is some truth in each assertion. Property may to-day be divided roughly as follows: (1) private property; (2) private properly used in the public service; and (3) public property. The second class, as such, is clearly anomalous and unstable. It is neither wholly private nor wholly public. Yet public service commissions are founded on the idea that this class will continue as a distinct kind of property; otherwise commissions are only a temporary makeshift. It is vain to blind ourselves to modern socialistic tendencies. This second class of property is growing, and much of it is passing on into the third class, public property, but none is falling back. Public service commissions are, by their activities, increasing the value and keeping down the valuation of properties in this second class; and thus the way for ultimate public ownership is being smoothed. But, at the same time, the need for public ownership is being greatly minimized.¹¹⁸

Mr. Herbert Croly has produced an argument against the New York type of commission which deserves notice.¹¹⁹ The great public utilities which the state is now trying to regulate through commissions came into being as private properties, built up by the most effective of modern industrial organizations, the highly centralized private corporation. The essential condition of the creation of these great industries was the freedom given the corporations. Can we now substitute officialism for individualism,

¹¹⁸Whether public ownership itself is socialism is a question of some nicety. See Taussig, *Principles of Economics*, vol. 2, pp. 454-56.

¹¹⁹Herbert Croly, *The Promise of American Life* (1912), pp. 357-68.

divided responsibility for centralized, and continue to enjoy the benefits of the corporate form of organization? Mr. Croly argues that the New York law, giving the commissions control over rates and service, carries interference too far; that the corporations will lose their eagerness for progress, and settle back to a complacent reliance upon the state officials.

Besides overemphasizing the efficiency of the corporate form of organization, Mr. Croly seems to have overlooked certain important factors. Public service commissioners, when properly chosen, are not mere officials, but experts, and the corporations in New York quickly found that they had a great deal to learn from these experts. Moreover, the corporations are becoming more and more desirous of working in harmony with the public; they no longer insist so strongly on their private character; and they find the public service commissions a splendid go-between. As far as New York is concerned, the commissions have not interfered unnecessarily, or even more than Mr. Croly himself thinks well.¹²⁰ Finally, it must be remembered, Mr. Croly was planning a somewhat ideal scheme, other parts of which have not been carried into effect. Nevertheless, his argument has considerable weight, and the type of commission he proposes was successful in the regulation of railroads and gas and electricity in Massachusetts.

4. SUGGESTIONS FOR A STATE PUBLIC SERVICE COMMISSION LAW¹²¹

A commission's success will vary with the powers granted it, the men appointed, and the influences brought to bear upon it.¹²² Hardly any legal provision can be made for the last. The mem-

¹²⁰Croly, p. 100. "Special instances may always exist of unnecessarily high or excessive (otherwise necessary) rates; and provisions should be made for the consideration of such cases, perhaps by some court specially organized for the purpose. . . ."

¹²¹The National Civic Federation's investigators have prepared with care a Model Public Utility Law which the author finds himself prevented from discussing until the whole report is published. In *passim* it would seem well to have the law follow the outline given in Chapter II of this paper, or that used in the California law. See Deane, pp. 86-87.

¹²²The Massachusetts Railroad Commission (1890-1) and the Board of Gas and Electric Light Commissioners (1888-9) have been successful because of their membership and better desire, than because of their limited powers. The New York Railroad Commission (1890-91) would not have been much less successful had it had as able persons as the former Public Service Commissions, for its members were clearly not fit men.

bers should be experts, drawn from any part of the nation, and should be appointed and be removable by the governor. Some test of fitness might well be provided, but administrative ability should also be required. In most states three commissioners are enough; financial support should be liberal.¹²³

At the present time, and especially in the West and Middle West, no commission except one with power to enforce its orders will be acceptable, and the powers of enforcement should be made real. However, in order that no legitimate development of business may be checked at the whim of the commission, the law should state clearly and fully the scope of the rights and duties of the corporations affected. Legislation by the commission should be confined to a narrow field. Its executive functions would then assume relatively greater importance, and its powers of execution should, consequently, be made very broad. Rates, service, capitalization, intercorporate relations, reorganizations, accounts, and reports, should be, within the terms of the law, strictly subject to control by the commission. Thus new abuses could be prevented. For the removal of old grievances, education and publicity have proved fairly efficacious. Rules of evidence should be elastic; procedure may be left to the commission. All terms used in the law should be clearly defined.¹²⁴

Finally, while the act should be complete in every detail, and the commission given considerable power, conservatism should so temper the law that the development of industry would progress unhindered. Steadiness and reasonableness have made the "weak" Massachusetts commissions strong, while too drastic, destructive action is hurting the prestige of commissions with wider powers; and the success of the New York commissions should be attributed not so much to the broad powers they possess as to the deliberate yet firm moderation with which they have gone forward.

¹²³New York has done "much farther in this respect than has given the commission any definite, precise, definite effect". Although no serious difficulty has resulted from the loose use of words the term is such it would be advisable to determine to have some social meaning given it, and that meaning adhered to. A "utility" in theoretical economics is one for furnishing a plant used to make use of the corporation, meaning that plant, that it is astounding to learn that this one term stands, at various times, for all these things and more. The New York only seven or eight industries are sufficiently "public" to require government regulation; in some other states the number is much larger. For a full discussion of the term "public service" see *THEORY AND PRACTICE OF ECONOMIC REGULATION*, pp. 119, 120, 121, 122, 123. See also *DEPARTMENT OF COMMERCE, BUREAU OF MANUFACTURES*, no. 22, an article by Professor Frank Parsons.

APPENDIX I

JURISDICTIONS OF THE TWO COMMISSIONS

EXPLANATION. *Locally* here used, means wholly within the district under discussion; *in re* means to that extent which is necessary in carrying out other powers and duties, according to which the commission in question controls the corporation, the plant, the service, and all the activities of the corporation; the three asterisks indicate that no provision has been made, and that probably no such corporations exist.

	THE FIRST DISTRICT COMMISSION CONTROLS:	THE SECOND DISTRICT COMMISSION CONTROLS:
RAILROADS	1. Of those wholly local: everything. 2. Of those crossing into the second district: <i>a</i> , property in first district; <i>b</i> , corporations <i>in re</i> ; <i>c</i> , local transportation.	1. Of those wholly local: everything. 2. Of those crossing into the first district: <i>a</i> , property in second district; <i>b</i> , corporation <i>in re</i> ; <i>c</i> , all transportation not purely local to the first district.
STREET RAILROADS	1. Of those wholly local: everything. 2. Of those crossing into the second district: <i>a</i> , property in first district; <i>b</i> , corporations <i>in re</i> ; <i>c</i> , all transportation except that purely local to the second district.	1. Of those wholly local: everything. 2. Of those crossing into the first district: <i>a</i> , local property; <i>b</i> , purely local transportation; <i>c</i> , corporations <i>in re</i> .
OTHER CARRIERS	1. Of those wholly local: ***. 2. Of those crossing into the second district: <i>a</i> , purely local operations; <i>b</i> , corporations <i>in re</i> .	1. Of those wholly local: everything. 2. Of those crossing into the first district: everything, save operations purely local to the first district.
GAS AND ELECTRICITY	1. Of those wholly local: everything. 2. Of those crossing into the second district: ***.	1. Of those wholly local: everything. 2. Of those crossing into the first district: ***.
TELEPHONE LINES	1. Of those wholly local: ***. 2. Of those crossing into the second district: nothing.	1. Of those wholly local: everything. 2. Of those crossing into the first district: everything.
TELEGRAPH LINES	As for telephone lines.	As for telephone lines.
SPECIAL JURISDICTIONS	The First District Commission has also the powers of the former Board of Rapid Transit Railroad Commissioners, abolished in 1907.	

APPENDIX II

MEMBERSHIP OF THE TWO COMMISSIONS, 1907-1911

FIRST DISTRICT COMMISSION

1907	1908-1910	1911
William R. Willcox, Ch'm'n	The same members	William R. Willcox, Ch'm'n
William McCarroll	continued to act	William McCarroll
Edward M. Bassett		Edward M. Bassett ¹
Milo R. Maltbie		Milo R. Maltbie
John E. Eustis		John E. Eustis
		L. Sergeant Cram

SECOND DISTRICT COMMISSION

1907	1908	1909
Frank W. Stevens, Ch'm'n	Frank W. Stevens, Ch'm'n	The same members
Charles Hallam Keep	Charles Hallam Keep ²	continued to act
Thomas Mott Osborne	Thomas Mott Osborne	
Martin S. Decker	Martin S. Decker	
James E. Sague	James E. Sague	
	John B. Olmsted	
1910		1911
Frank W. Stevens, Ch'm'n		Frank W. Stevens, Ch'm'n
Thomas Mott Osborne ⁴		Martin S. Decker
Martin S. Decker		James E. Sague
James E. Sague		John B. Olmsted
John B. Olmsted		John N. Carlisle ⁶
John N. Carlisle ⁵		Winfield A. Huppuch ⁷

¹Continued to serve until his successor, J. Sergeant Cram, was appointed, June 9, 1911. *Proceedings*, VI, 100-781.

Resigned March 6, 1928.

Succeeded to place of Charles H. Kees, Assistant, 1905.

⁴Resigned February 1, 1910.

⁵Appointed February 1, 1901.

^aTerm expired February 2, 1993.

Appointed February 26, 1901

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The University of Minnesota

CURRENT PROBLEMS

NUMBER 2

RURAL TEACHERS' TRAINING DEPART- MENTS IN MINNESOTA HIGH SCHOOLS

BY

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RURAL TEACHERS' TRAINING DEPARTMENTS IN MINNESOTA HIGH SCHOOLS

I. INTRODUCTION

PURPOSE OF THIS STUDY

The rural-school problem is one of the most urgent problems confronting American educators to-day. In the first place it concerns the majority of our people. Monahan¹ states that in 1910 rural communities furnished 53.7 per cent of our total population, 58.5 per cent of our school population, and 62.3 per cent of our total school enrollment. The State of Minnesota showed corresponding percentages of 59, 64.8, and 69, respectively.² In the second place developments in rural education have not kept pace with educational developments elsewhere. "Public schools, both urban and rural, have made considerable progress, but the marked progress has been confined almost wholly to the city and town. . . . it is generally true for the United States as a whole, that rural schools lack intelligent and economical management, adequate supervision and efficient teaching."³

The heart of the rural-school problem is the preparation of the country teacher. "The country school will not reach the position of efficiency that belongs to it until a distinctive preparation is required of its teacher."⁴ "At least three basic reasons may be offered in advocating the special training of country teachers. (1) The peculiarities of the ungraded school afford numerous characteristic difficulties in the way of management, administration, and teaching. (2) The adaptation of the subject matter to the experience of country children requires special attention. (3) The sociological conditions of the country

¹ Monahan, A. C., *Status of Rural Education in the United States*. Bul. U. S. Bureau of Education, 1913, No. 8, p. 16.

² *Ibid.*, pp. 17 and 21.

³ *Ibid.*, p. 9.

⁴ Mutchler, F., and Craig, W. J., *Course of Study for the Preparation of Rural School Teachers*. Bul. U. S. Bureau of Education, 1912, No. 1, p. 8.

differ from those of the city and demand special study on the part of teachers who are to work in rural localities.”⁵ The abundant literature recently published on rural education seems to agree in making something like the following demands upon the ideal country teacher:

(1) Knowledge of subject matter, of the various common branches and industrial subjects. But it must be such a knowledge of these materials as will enable her to present them in the light of a country child's peculiar experience and a country man's or woman's future needs.

(2) Ability to meet directly the pedagogical problems of the situation. This ability presupposes a course in practice teaching which is organized to illustrate and solve the special problems presented by rural schools.

(3) Understanding of, and sympathy with, country life. A certain amount of country life experience is highly desirable for the country teacher, but it must have awakened and not stifled her enthusiasm for that life.

(4) Particular acquaintance with modern movements looking toward country-life improvement, and knowledge of the corresponding functions of the rural school.

(5) Such a faith in the country and the country school as will lead her to make of rural teaching a real profession, and not a stepping-stone to a graded school and village society.

This study attempts to ascertain to what degree the Minnesota plan for the preparation of rural teachers meets these demands.

THE MINNESOTA PLAN FOR THE TRAINING OF RURAL TEACHERS

Description.—The chief means in Minnesota for the training of rural teachers is the training departments maintained in about one half of our high schools. One hundred and eight of these departments were in operation during the past year. They are given state aid to the amount of \$1,000 each, and are under the general control of the High School Board, which formulates the rules under which they operate and which now provides a special inspector for their supervision. Each department is in the charge

⁵ *Cutney, Mabel, Country Life and the Country School* (1912), pp. 253-4.

of a special teacher or training supervisor, and offers one full year of training to those high-school students, preferably seniors, who propose to teach in rural schools.

Country teachers are at present largely ignored by our state teachers' training institutions. The University of Minnesota offered its first course in rural education in the spring of 1914. Of the state normal schools two report "no work whatever," two report only a course in Rural Sociology, and one reports Rural Sociology and Rural School Methods. The state agricultural schools are showing a clearer appreciation of the needs of rural education. A full-year course for country teachers is announced at Crookston for 1914-15, while Morris expects to extend its present summer course into a year course in the near future. But at present, and probably for a long time to come, the real responsibility for the training of rural teachers in Minnesota rests, and will continue to rest, upon the high-school normal training departments.

Historical sketch.—In 1903 the legislature of Minnesota passed an enactment providing annual state aid to the amount of \$750 for "each high school having a four year course, and organized classes in each of the four grades therein, which shall provide for special normal instruction in the common branches."⁶ This act virtually created the high-school training departments. For several years previous a few high schools had offered instruction in the common branches, but attendance had been uncertain and the work had been discontinued in many places. The response to this stimulative enactment was very slow. We are told that before 1906 the majority of our country teachers secured their only professional training through summer training schools and institutes.⁷ In 1907-8 only ten departments were reported, with 182 students in 1907 and 233 in 1908.⁸ Prospects in 1908 seem to have been discouraging, for the high-school inspector wrote: "Work in these departments shows no new tendencies, the attendance is small. . . . unless there is a radical change there is little hope that they will multiply and supply rural teachers for the state at large."⁹ But this change had evidently come in 1910, when the state superintendent wrote:

⁶ *Revised Laws of Minnesota*, 1905, Sec. 1420.

⁷ *Report of State Superintendent of Public Instruction*, 1904, p. 17.

⁸ *Ibid.*, 1907-8.

⁹ *Ibid.*, p. 197.

"No part of our state plan for providing trained teachers, especially for rural schools, has made more rapid or gratifying progress during the period of this report than the high school departments for the training of rural teachers."¹⁰ The high-school inspector reported twenty-seven departments for the same year, and published the first list of rules for their direction. The name "training departments" was also given at this time.¹¹ The enrollment was stated as 489.¹²

Growth was rapid during 1911 and 1912. In 1911 fifty-six departments and 740 students were reported; in 1912 eighty-one departments and 1,018 students.¹³ A slight decline occurred in the school year 1912-13, when there were only eighty departments and 979 students.¹⁴ But in 1913 a new impetus was given to the work by a legislative provision increasing the amount of state aid to \$1,000.¹⁵ The result was a sudden increase in the number of the departments, 108 being announced at the beginning of the last school year.¹⁶

Official status.—The following quotation from the report of the state superintendent of public instruction for 1911-12 (pp. 24-6) is offered as an indication of the importance with which these departments are officially regarded. "The surest and most direct way of obtaining better schools is to provide them with better teachers. Real progress has been made in the high and graded schools. . . . The prospects in rural schools are not so encouraging. . . . Take it all in all, less than one-fourth of our nine thousand country teachers have received any professional preparation for their work. . . . To provide trained teachers for all rural schools would necessitate an enlargement of the present facilities for training. . . . The most economical and expedient course would be to add to the number and increase the efficiency of the high school training departments. We have 211 high schools. If 150 of them maintained strong training departments the result would be an annual output of from 1,500 to 2,000 teachers, which, with the number annually

¹⁰ *Report of State Superintendent of Public Instruction, 1909-10*, p. 17.

¹¹ *Ibid.*, pp. 221-4, 235.

¹² *Report State High School Inspector, 1913*, p. 61.

¹³ *Ibid.*

¹⁴ *Ibid.*

¹⁵ *General Statutes of Minnesota, 1913*, Sec. 2937.

¹⁶ *Educational Directory of Minnesota, 1913-14*.

graduated from the normal schools, would very nearly make up for the annual withdrawals from the teaching ranks."

II. SOME TENDENCIES IN THE DEPARTMENTS

The following discussion is the outgrowth of a study conducted by the writer during the school year of 1913-14. Personal visits were made to more than a score of the departments, and a questionnaire relating to problems raised during this visitation was formulated and sent to all of the training supervisors in the State. A copy of the questionnaire is appended to this report. Replies were received from 98 out of the 108 training teachers consulted. Of these, three are not included in the analysis, one being very incomplete, and one having to do with the training of grade teachers only, while the third was received after the study had been completed.

In the discussion of results it has seemed best to adopt a different arrangement from that of the original questionnaire, in order to secure a more logical sequence, and to assemble the data around a few fundamental propositions.

CONCERNING THE COURSE OF STUDY

Problem.—Are the courses of study in the different departments fairly uniform throughout the State? If not, is the diversity probably due to attempts at local rural adaptation, or to mere accident or caprice?

Rules of the High School Board.—The following subjects are required: American history, arithmetic, civics, geography, grammar, children's literature, reading and writing; but "not all can be taken up systematically" and "no fixed course can be prescribed." It "should be adapted to local communities" and "emphasis should be placed on such subjects, and on such phases of each subject, as may seem most serviceable in building up the rural schools of the community."¹⁷

Data from the questionnaire.—In the assembling of the data relative to the course of study the divisions suggested in the questionnaire can not be followed. Very few teachers seemed able

¹⁷ *High School Board Rules*, Minnesota Department of Education, Bul. No. 45, p. 17.

to distinguish sharply between "special subjects reviewed" and "other work required." All that can be done is to state the more important kinds of subject matter mentioned and the number of schools making mention of each. Ninety-five schools reported.

Subject	Number of schools teaching subject	Subject	Number of schools teaching subject
History	91	Seat Work	14
Arithmetic	91	Chart Making	12
Grammar	89	Calisthenics	6
Geography	87	Current Events	5
Civics	69	Nature Study	5
English Composition	60	Phonics	4
Physiology and Hygiene	60	Story-telling	4
Spelling	53	Play-ground Activities	4
Writing	53	Art	4
Agriculture	47	Rural Problems	3
Reading	40	Sanitation	3
Drawing	32	Hot-lunch Demonstrations	3
Domestic Science	31	Scrap-book Making	2
Music	31	School Law	2
Manual Training	25	Dramatization	2
Construction	24	Community Clubs	1
Methods	21	Elocution	1
Children's Literature	19	Gardening	1
Sewing	16	History of Education	1
School Management	14		

In addition to the above, four teachers reply that they teach "all the common branches."

Discussion.—That there is no great uniformity existing among these courses of study is perfectly clear. Only arithmetic and history are mentioned or implied in every list, although geography and grammar are omitted from very few. These subjects afford a backbone of continuity. On the other hand, several of the subjects stipulated by the High School Board are not mentioned by many schools. Civics, English composition, and physiology and hygiene are omitted in fully a third of the reports; spelling, writing, and reading are even less frequently described. As to the remaining subject matter, the greatest variety prevails.

It is not so clear how far the different courses show adaptation to rural needs, nor how far they are determined by the personal predilections of the training teachers. Subjects like history of

education, elocution, dramatization, and scrap-book manufacture suggest personal idiosyncrasies. Others of the subjects, however, show a clear appreciation of the peculiar demands of rural schools. Among these are play-ground activities, rural problems, sanitation, gardening, hot-lunch demonstrations, and community clubs. But these and similar subjects, which should be prominent in every course, are actually found in very few. In general it appears that both the tastes of the training supervisors and the local conditions under which they work are responsible for the great variety of subject matter, but that the first factor predominates.

CONCERNING THE RURAL SCHOOL EXPERIENCE OF THE STUDENT TEACHERS

Problem.—Do the student teachers in these departments possess sufficient rural experience to appreciate the differences between the common and the graded school, and between the demands of country and village or city life?

Data from the questionnaire.—(a) Experience as pupils in rural schools, reported for 821 out of the 1,029 students included in the study.

Experience	Number	Percentage of students thus reporting
None	444	54
Less than a year	11	8½
One year	29	
Two years	14	
Three years	16	
Four years	21	36
Five years	17	
Six years	40	
Seven years	94	
Eight years	116	10½
More than eight	8	
Indefinite	11	

From this table it appears that of the group reporting 54 per cent have never attended a rural school, and that another 8½ per cent have had less than four years of such experience. If the term "country-bred" be used for those who have received

at least half of their elementary school training in the country, then only 36 per cent can be described with certainty as country-bred.

It will be noticed that 208 students are not included in this summary, for the reason that their experience was not reported. It seems probable that the chief reason for this failure to report was that few, if any, possessed such experience. There is certainly nothing to indicate that the proportion of those having had rural experience would be any higher in this group.

(b) Experience as teachers in rural schools: Out of 899 students reported in this connection 828 (92 per cent) have had none. Of the sixty-four individuals possessing such experience, forty-four had taught one year or less, ten had taught two years, six had taught three years, and the period of service of the remainder was not given.

Discussion.—Unfortunately the replies do not show how many of those who have taught in rural schools have also attended them as pupils. But assuming that there has been no overlapping, we still have 380 students, comprising 47 per cent of those reported, who are certainly without direct personal knowledge of country-school conditions, from the standpoint of either the teacher or the pupil. So far as overlapping occurs in the above groups, this number is correspondingly increased. It is safe to say that fully one half of the student teachers in the high-school departments of the State are lacking in this essential preparation.

CONCERNING PRACTICE TEACHING

Problem.—Country-school teaching offers certain peculiar problems of teaching and of management. In teaching, both the selection of the subject matter and the method of its presentation must be modified to suit the experience and future aims of a country child. Present courses and methods are largely city products. To readjust them to country conditions is the country teacher's problem. In management, we have the difficulties presented by an ungraded room, small classes, many and brief recitations, the simultaneous conducting of a recitation and supervising of the study room, and complete responsibility as to discipline and conduct.

Such responsibilities require a specific preparation on the part of those who are to bear them. Actual experience in rural schools seems almost indispensable, but is lacking in fully 50 per cent of our prospective rural teachers. Where it is lacking, certainly the training course should offer an efficient substitute. And even where it is present, the training department should supplement that experience by giving to the student a wider knowledge and higher ideals of country life. How nearly do the training departments in Minnesota measure up to these demands?

Rules of the High School Board.—"Each student shall devote **one-fourth day or its full equivalent to practice teaching.** . . . Work must be pursued in the training department for the full school year of nine months." Counting five hours as a school day, a school year would then include 225 hours of practice teaching. "The organization of an ungraded model school is encouraged. . . . The daily program should be framed as a model for a rural school. . . . The model school shall in no case be constituted one of the grade rooms of the school so as to dispense with the services of the regular teacher."¹⁸

Data from the questionnaire.—(a) Twenty-six schools (27 per cent) report that backward pupils, both dull and delayed, constitute their chief material for practice work. Twenty-eight more (29 per cent) describe them as a large factor. As one teacher puts it: "We are asked to help the backward pupils in their weakest subjects." The ungraded room seems frequently to be made up of this sort of material. Of the twenty-six schools which work chiefly upon backward children, sixteen have the ungraded **practice room.** One teacher writes: "We work on backward pupils in the model room and on pupils of differing capabilities in the grades." Several teachers, in another connection, object to the establishment of ungraded rooms in their departments because "they would be made up of delinquents from all the grades."

(b) Thirty-seven schools (38 per cent) now possess an ungraded practice room; eight (8 per cent) have had one but have discontinued it for different reasons; twelve more (12 per cent) are planning to establish one in the near future. Thirty-seven of the teachers who neither possess the room nor plan to develop it

¹⁸ *High School Board Rules*, Minnesota Department of Education, Bul. No. 45, pp. 19 and 25.

express their belief that it would be a help to their departments. Only nine profess to believe that it would not.

That the fears of the few who oppose the plan are largely groundless is apparent from the fact that, of the forty-five schools which now have or have had the ungraded room, thirty-six (80 per cent) report it as successful, while only six (13 per cent) declare it to be a failure. Many describe it as very successful. One teacher writes that it is "one of the most successful things that we have tried"; another that "both teachers and pupils take great delight in it." Still another believes that it "furnishes the only chance for practice in discipline and system."

Doubtless one great defect in these ungraded rooms in Minnesota is their use of backward pupils for practice purposes. To this fact is probably due much of the opposition which now exists against them. But the use of such pupils is not necessary. In fact, the best training supervisors refuse to admit more than a small proportion of backward children, and insist that the room be made truly representative of a rural school. Where this is done, unless local conditions are peculiar, the desirability of the ungraded room can hardly be questioned.

(c) Thirty-five schools (36 per cent) report regular practice teaching in actual rural schools; ten more plan to begin such teaching shortly. Nine others furnish regular observation. Seventeen secure such practice irregularly by substituting when vacancies occur. Twenty-nine report no such work. Two fail to report at all.

As to the amount of this practice, four report less than a week, twenty-five report one week, eleven report two weeks, one reports one month, and one says "two weeks to a month." The others give diverse and unclassifiable replies, but in all cases the amount is small.

Eleven schools have both the ungraded room and rural practice, twenty-six more have the ungraded room, and another twenty-four a short practice period in the country.

(d) The reports show great diversity as to the amount of time given to practice teaching. As shown above, 225 hours is the minimum according to the rules of the High School Board. The following table shows the number of hours a year reported by the different schools.

2 schools report less than 100 hours
4 schools report from 100 to 149 hours
12 schools report from 150 to 199 hours
7 schools report from 200 to 224 hours
15 schools report from 225 to 249 hours
17 schools report from 250 to 299 hours
6 schools report from 300 to 349 hours
12 schools report from 350 to 399 hours
4 schools report more than 400 hours

The following shows the number of months over which the training is reported to have extended. Nine months are required by the rules of the High School Board.

1 school reports	10	months
67 schools report	9	months
2 schools report	8½	months
7 schools report	8	months
1 school reports	7	months
1 school reports	5	months

Discussion.—We may here raise the question, is the practice teaching conducted primarily in the interests of the rural schools, or in the interests of the schools which maintain the training departments? No doubt in the majority of cases the real purpose of such practice, i.e., the preparation of efficient rural teachers, is conscientiously adhered to. But in many cases it would appear that the quality of the work is seriously affected by the apparent interests of the schools which maintain the departments. In some cases they seem to be used to reconstruct defective or delinquent material. One superintendent told the writer that he regarded his department as chiefly serviceable in this way. It is probable that his is not an isolated case. Again, in other cases the real needs of the departments, such as an ungraded room, are not met, because to meet them would interfere, or seem to interfere, with the unity of program or harmony of spirit of the town or city system.

Doubtless these difficulties are to some extent inherent in the plan of asking city or village schools to perform this service. From one point of view it seems unfair to ask that a town school should risk its own interests in order to serve more effectively the interests of its rural neighbors. But from another point of view

no town school has the right to accept funds from the State for the maintenance of rural teachers' training courses unless it is willing to make those courses as efficient as they can be made. Furthermore, most of the schools find it possible to use other than backward pupils as practice material, and to give the full amount of practice teaching required under the rules of the High School Board; and many find it also possible to maintain an ungraded practice room or to furnish practice in actual rural schools. Few of these schools report that these features interfere in the least degree with the giving of their best service to their own constituents.

CONCERNING THE STUDY OF RURAL SOCIAL PROBLEMS

Problem.—If actual experience with rural life is generally lacking among the students, and our data indicate that it is, just what are the departments doing to furnish a substitute? To turn a town-bred girl into a rural community without some preparation for the many strange things that she must encounter is to assure her early discouragement and ultimate failure in many cases. What preparation for these things do the departments offer?

Data from the questionnaire.—Three schools out of the ninety-five consulted report what seems to be a formal study of rural social problems.

Forty-one schools state that these matters are taken up informally and occasionally, but apparently without system. In twenty-four of these schools reading assignments are made to recent literature on rural life,¹⁹ and supplemented in many cases by reports of visits to country schools, rural meetings, and entertainments. Such a method, if consistently pursued, would seem to be effective. Talks by the county superintendent, the training supervisor, the teacher of agriculture, and others, are mentioned. One teacher reports the use of a question-box once a week. As a rule these informal discussions occur during the period devoted to general exercises.

Forty schools report an incidental discussion of these ques-

¹⁹ The books most frequently used are the following, here given in the order of preference indicated by the numbers of teachers mentioning each: Carney, *Country Life and the Country School*; Wray, *Jean Mitchell's School*; McKeever, *Farm Boys and Girls*; Kern, *Among Country Schools*; Borass, *Getting Along in Country Schools*; Foght, *The American Rural School*; Fields, *The Corn Lady*.

tions in connection with the regular subjects, at opportune times, or whenever such questions are raised by the class. This method is even less systematic than the one described above. A great variety of subjects is named, in connection with which this incidental instruction is given. Among them are agriculture, hygiene and sanitation, nature study, civics, composition, management, reading, arithmetic, and geography. Some seem very remote from "social problems."

But is a course in the study of rural social problems regarded by the training teachers as desirable, as one promising to perform a practical service? Three teachers state their belief that it would not be practical; eighty teachers declare more or less emphatically that it would; seven give a conditional affirmative. Among the different replies are these: "decidedly so"; "of prime importance"; "a course that should be introduced systematically." On the other hand, several of those favoring the work in itself believe that it should be made an incidental part of a course of study that is already overcrowded.

Discussion.—The study of rural life and social matters in the departments seems to be very meager, in consideration of the great lack of country experience among the students. In practically every school the work is informal or incidental. The informal procedure described by many of the schools is commendable if enough is made of it, but the incidental method has little to recommend it. Incidental teaching is too likely to be no teaching at all. Again, many of the subjects mentioned as being the vehicles of this incidental teaching are so remote from social problems as to raise a doubt whether the teacher making the reply really got the meaning of the question. It is safe to say that only a small proportion of the departments offer work of real value along this line.

A natural and apparently reasonable objection to including a study of modern rural social problems in the course of study is that the average student in these departments is too young to profit by it. But what then? Are the rural schools of Minnesota to drop out of the movement to meet more closely the needs of rural life? Or shall the rural teaching force of the State be recruited from outside the high-school departments? Such a dilemma confronts the advocates of this objection.

CONCERNING THE TRAINING SUPERVISORS

Problem.—"As is the teacher, so is the school." It is a frequent remark among the school men of the State that these departments are "just what the training teachers make them." Such is the latitude granted by the High School Board that the training teacher has a large part in determining nearly every feature of the work. Subject matter, program, method—these are largely at her discretion, with the result that there is much variety in all three. This liberty is excellent if the supervisor is thoroughly experienced and properly prepared. Let us examine in detail this experience and preparation.

The rules of the High School Board are, in effect, that certificates shall be granted only to teachers of approved experience, who seem to have special fitness, who have a knowledge of rural-school conditions, and who furnish a satisfactory certificate or diploma.

Data from the questionnaire.—(a) Experience as pupils in country schools: Data were received for ninety-two teachers, who were distributed as follows:

Years' experience	Number	Percentage of those reporting
None	37	40
Less than one year	5	17
One year	6	
Two years	4	
Three years	1	
Four years	2	41
Five years	4	
Six years	4	
Seven years	7	
Eight years	16	2
More than eight	4	
Indefinite	2	

It thus appears that fully 40 per cent of the teachers who reply have had no such experience, and that only 41 per cent can be described as "country-bred."

(b) Experience as teachers in rural schools: Again ninety-two teachers report as follows:²⁰

²⁰Of these, fifty-two teachers and all of them had part of this experience in Minnesota, while thirteen had part or all of it outside of the State.

Years' experience	Number
None	6
Less than a year	2
One year	20
Two years	19
Three years	14
Four years	12
Five years	9
Six years	4
Seven years	4
Eight years	2

(c) Total rural experience: Found by adding together the years spent as pupil and as teacher, by each supervisor, in the rural schools.

Years' experience	Number
None	2
Less than a year	3
One year	11
Two years	10
Three years	8
Four years	7
Five years	7
Six years	5
Seven years	5
Eight years	5
Nine years	5
Ten years	7
Eleven years	1
Twelve years	4
Thirteen years	4
Fourteen years	3
Fifteen years	0
Sixteen years	1
Doubtful	2

From these tables it appears that the great majority of the training supervisors have had sufficient rural experience to be acquainted with rural conditions as they are, or were. Let us now see to what extent this experience has been supplemented by proper training.

(d) Amount of normal school, college, or university training received by the supervisors above a four-year high-school course.

In making these compilations half years were not counted. Returns were received from ninety-four teachers.

Years	Number reporting
None	0
Less than a year	5
One year	13
Two years	36
Three years	13
Four years	18
Five years	5
Six years	1
Doubtful	3

It will be observed that eighteen teachers (19 per cent) have had less than the equivalent of a two-year normal-school course, and that sixty-seven teachers (71 per cent) have had less than the equivalent of a four-year college course.

(e) Sources of this advanced training: It is worth while to know what institutions in the State have had a part in furnishing this preparation. In the table below the numbers in the columns headed "all," "most," and "part" indicate the numbers of teachers who have received all, most, or part of their preparation in the institutions named.

Institutions	All	Most	Part
University College of Education	7	2	13
Moorhead Normal	9	4	1
Winona Normal	7	3	3
Mankato Normal	13	5	4
St. Cloud Normal	5	0	2
Duluth Normal	2	0	0
Colleges	5	0	1

Normal schools thus seem to be the chief factor in the preparation of those teachers who have received their training in this State. The same statement holds for those who were trained elsewhere. The situation may be summarized by saying that nine teachers (9 per cent) have had all or most of their training in a standard university, seventy-four teachers (79 per cent) in normal schools, and ten teachers (10 per cent) in small colleges.

(f) Date of this advanced training: It is important, as will appear in the discussion, to know when this training was re-

ceived. Such a period is very difficult to fix in most cases, because the work has been done piecemeal. Two columns are arranged below; the one headed "bulk" means that the most continuous part of the course was completed during the periods indicated; the one headed "last" shows the number of teachers who have had no training since the date indicated by their place in the column.

	Bulk	Last
Before 1890	4	3
1890-1899	9	6
1900-1904	12	
1905-1909	41	28
1910-1913	25	45

This table may be read as follows: "Four teachers completed the bulk of their preparation before 1890, and three have had none since; nine teachers completed the bulk of theirs between 1890 and 1899, and six have had none since, etc."

(2) Special preparation for rural-school work: A question of more immediate importance than the amount, period, or place of this post-high-school training is, did it include any work bearing directly on the problems of rural education?

Nineteen teachers make no reply to this question, fifty answer in the negative, and twenty in the affirmative. Seven describe the work received by them as incidental or indirect. Only a very few courses are mentioned in any case, and nearly all were taken outside of the State.

Discussion.—The question here is, to what extent are the supervisors of practice teaching fitted by their experience and training to supervise the preparation of teachers for rural schools?

So far as experience with country schools is concerned, that of most of the supervisors is very fair, and of many is excellent. While only 41 per cent are country-bred in that they have attended country schools for four years or more, all but eight have had at least one year's teaching experience in the country, and a large number have had much more. No fault can be found with this part of the record of most of our training supervisors; on the contrary, it is highly commendable.

But country experience, while an important part, is after all only a part of a normal teacher's training. In addition, she should

have a good general education beyond the high school, and besides the usual teacher's preparatory course she should have made a special professional study of rural teaching. Furthermore, this professional study should have been recent enough to bring her into direct touch with modern rural movements.

From these points of view the attainments of our training supervisors leave something to be desired. A normal-school course, reported by approximately 75 per cent of the teachers as their chief and by 60 per cent as their sole training, is good, but should be extended into a full college course of four years. Those who supervise the training of our rural teachers should be in no wise inferior in point of general culture to those who prepare our teachers for the town. But what is more important, the professional training should include a much greater amount of work bearing on the conduct of these particular departments, and on rural education. The professional preparation of the present supervisors has looked almost entirely to graded-school work. This appears to be its gravest defect. The rural-school experience of these teachers, extensive as it is, can not take the place of such specific training, for the reason that this experience gives only a knowledge of what rural schools are, or were, and not of what they ought to be.

Furthermore, there have been recently very rapid developments in our ideas of rural education, particularly since the publication of the report of the Roosevelt Country Life Commission in 1909.²¹ But it has been shown that forty-six teachers (48 per cent) report no academic or professional work since that date, and that sixty-six teachers (70 per cent) had finished the greater part of their preparation before that time. The evidence clearly shows that the majority of the supervisors need a broader academic training and a much more specific professional preparation.

One of the most urgent needs in Minnesota at the present time is the establishment at some state teachers' training institution of a thorough course for the professional training of these departmental supervisors. Such a course, in addition to the usual professional work offered to the regular grade teacher, should include a careful study of rural-life problems and of rural pedagogy. A model rural school should be provided to exemplify

²¹ *Report of the Commission on Country Life*; 60th Congress, 2d Session, Senate Doc. No. 765. Also reprinted by Stungis and Walton, New York, 1911.

ideal conditions and afford proper teaching practice, such as the schools now found in connection with state institutions in Wisconsin, Missouri, Illinois, and elsewhere. The writer has had the privilege of visiting two such schools, and to him they opened visions of a new era in country teaching.

CONCERNING THE PROFESSIONALIZATION OF RURAL TEACHING

Problem.—Among the many things entering into the professionalizing of rural teaching is the establishment of a more or less permanent corps of teachers with a respectable amount of academic preparation. What are some of the actual tendencies in this respect?

Data from the questionnaire.—(a) Tendency toward feminization: The normal departments threaten almost completely to feminize the country teaching force. Of the 1,079 students included in the returns, thirty-one were males and 1,048 were females. Ninety-seven per cent were women. This feminization is in line with the tendency in the State since 1900, as shown by the following data compiled from the reports of the state superintendent.

Year	Percentage of male teachers in common schools
1900	22½
1901	21
1902	19
1903	17
1904	16½
1905	No data
1906	14½
1907	12½
1908	11
1909	10½
1910	10
1911	9
1912	8½

The influence of this tendency upon the permanency of the teaching corps is doubtful. But according to Coffman²² the women teachers the country over are making greater profes-

²² Coffman, L. P., *Social Composition of the Teaching Population*, Columbia University Contributions to Education, No. 41.

sional development than are the men. If this be true for rural teachers, this tendency toward feminization is not wholly bad.

(b) Increase in amount of academic training: It is estimated that at the beginning of the activities of the training departments the rural teaching force of the State was about equally divided among those teachers who were high-school graduates, those who possessed some high-school training, and those with none at all. The status of the 1,055 students whose academic position was reported in this study was as follows:

Amount of regular high school training when department is completed	Number of students
None	7
One year	11
Two years	100
Three years	98
Four years	839

Thus 79 per cent of this group will be high-school graduates, and all but seven will have had some high-school training when they finish the departments. The sending into the rural schools each year of a group of teachers with such a training must soon improve conditions there in this respect. But it will be observed that 21 per cent will not rank as high-school graduates when their work in the departments is completed.

(c) Teaching history of former graduates: Data were secured regarding the graduates of the classes of 1910, 1911, and 1912. The 1913 class was inadvertently omitted.

	1910	1911	1912
Number of graduates reported	373	678	767
Number now teaching.....	234	495	617
Number now in rural schools (both common and semi- graded)	224(60%)	481(71%)	613(80%)
Number now in graded schools	10	14	4
Number who did not teach..	40	68	87
Number who quit teaching..	94	96	42
Unknown	4	19	21

It thus appears that 60 per cent of the 1910 class, 71 per cent of the 1911 class, and 80 per cent of the 1912 class were still in rural teaching at the time when this study was made. If the number of those who did not teach be subtracted from the total num-

ber in each class, the percentages of those who remained in rural work after once beginning it are increased to 67, 79, and 90, respectively, for the different classes. Sixty-seven per cent of those who began in rural schools were still in that work after nearly four years had elapsed. This is not a bad record.

Discussion.—At the present time one can speak only in a prophetic way of a real "rural teaching profession." This statement has nation-wide application. Coffman, in the study cited above, describes the rural and small village schools as laboratories for the trying-out and polishing-off of raw pedagogical material.

Undoubtedly the departments are doing much to promote a higher professionalism. Their contributions in this direction may be summarized as follows:

(a) They have raised the standard of academic preparation among the rural teachers of the State.

(b) They have furnished a corps of teachers who promise to give rather extended service to rural work.

(c) They have, by their insistence on the reviews of the common branches, sent into the schools teachers more thoroughly informed in the subjects which they must teach.

(d) However one may be inclined to criticize the present methods of practice teaching, they are far more valuable than none at all, and have produced hundreds of young teachers who, while still amateurs, are far from being novices in the work. In this way they have given to the students a first-hand knowledge of children, and many methods and devices of immeasurable value.

(e) They have established in their product a professional enthusiasm toward teaching in general, if not toward rural teaching. Many training supervisors have remarked to the writer that their students were showing a growing interest in state normal courses and other means of professional preparation.

III. SUMMARY

The results of the preceding study probably redound more to the credit than to the discredit of the departments. While several desirable features are shown to be imperfectly developed, yet it is a matter for congratulation that so much has actually been

accomplished. However, it is possible to recognize the advantages and attainments of the plan without blinding oneself to its deficiencies. The writer has attempted in the foregoing study to establish the following propositions:

1. The course of study is to too great an extent dependent upon the initiative of the training supervisors. The result is a lack both of proper readjustment of the older subjects to rural conditions, and of new subject matter peculiar to rural life.

2. The students in the departments, who are the prospective rural teachers of the State, are sadly lacking in rural-school and rural-life experience. Fully 50 per cent have never attended or taught a rural school, and only 36 per cent have had half or more of their elementary school work in the country.

3. Backward children are too large a factor in the practice work, when 27 per cent of the schools give most, and another 29 per cent give a great part, of their attention to such material.

4. There are too few ungraded practice rooms and there is too little practice in actual rural schools. Eleven schools have both, twenty-six more have the ungraded room alone, and another twenty-four have an all too short practice period in the country. Both agencies are needed in every school to offset the great lack of country-school experience.

5. On account of the dearth of country-life experience among the students, the present amount of attention given to the study of social and other problems of the rural community is far too small.

6. The training supervisors, while possessing a satisfactory rural-school experience in most cases, show a deficiency in training, as regards its recency, its quantity, and its specific relation to the work in which they are now engaged.

7. While the departments seem to be tending toward a greater feminization of the rural teaching force, they are providing a corps of teachers with increasing academic training, and one which promises fair permanency in the profession.

APPENDIX A: THE QUESTIONNAIRE

A. STUDENTS IN TRAINING DEPARTMENTS

1. How many young women in class of 1913-14?.....
How many young men in class of 1913-14?.....
2. In columns (b) and (c) below, state number of young women and young men, respectively, who have completed, preliminary to normal training, the amount of high-school work indicated in column (a).

Column (a)	Column (b), Girls	Column (c), Boys
(1) None
(2) Less than a year
(3) 1 to 2 years
(4) 2 to 3 years
(5) 3 to 4 years
(6) High school graduates
3. State length of rural experience, *in years*, for each student having such experience (e. g., 1 yr., 2 yrs., 3 yrs., etc.).
 - (a) As pupils:
 - (b) As teachers:

(Note: State number having none, in each case.)
4. Résumé of former classes:

	1910	1911	1912
(a) Number students
(b) Now teaching
(c) In rural schools
(d) Semi-graded schools
(e) Graded schools
(f) Did not teach
(g) Quit teaching
5. Of the present class of students, how many contemplate for the present
 - (a) Rural school teaching?
 - (b) Semi-graded teaching?
 - (c) Not teaching?

B. COURSE OF STUDY FOR STUDENTS

1. State course of study required of students during year of training
 - (a) Practice teaching: Hours a week..... Months.....
 - (b) Observation of teaching: Hours a week..... Months.....
 - (c) Theory of teaching: Hours a week..... Months.....
 - (d) What special subjects are reviewed?
 - (e) What other work is required, if any?
2. Does your course of study include a special course in the social problems of rural education?

If so, describe course:

APPENDIX B: BIBLIOGRAPHICAL NOTE

(Prepared by Assistant Professor SAMUEL QUIGLEY)

During the last two or three years publications on every aspect of rural advancement have multiplied with astonishing rapidity. Rural economics, rural sociology, and every phase of rural education have been treated in books, pamphlets, and periodicals. Scores of reports and surveys have accumulated until only indifference can be responsible for the ignorance of those who are still lacking information and inspiration relative to the renaissance in rural-life interests.

A few of the more valuable of these works are described below.

Carney, Mabel, *Country Life and the Country School*. Row, Peter-son and Company, Chicago. 1912. \$1.25.

This book is a comprehensive and careful analysis of the several agencies of rural progress and of the social relationship of the school to the community. In addition to the excellent treatment of a wide range of topics in the body of the book, the publication affords an invaluable appendix which suggests a course of study for country-school teachers, a course in sociology, plans for school buildings, furnishings and equipment for country schools, aids for social center work, a country-school program, seat work, pictures and literature and music for the country, etc., and a carefully selected bibliography.

Eggleston and Bruere, *The Work of the Rural School*. Harper and Brothers, New York. 1913. \$1.00.

This book is distinctly inspirational and suggestive. At the same time the chapters are concrete and give valuable details. It will help the teacher to vitalize her class work as well as to develop a better appreciation of some of the problems of school government and administration.

Gillette, John M., *Constructive Rural Sociology*. Sturgis and Walton Company, New York. 1913. \$1.60.

This book comes strictly within the comprehension of the average teacher. It is thoroughly practical and will help the teacher to construct a working background for her position of leadership in the country.

Field, Jessie, *The Corn Lady*. A. Flanagan and Company, Chicago. 1911. 50 cents.

The letters of a country teacher to her father. The book is helpful in a concrete way toward a better interpretation of the course of study. It suggests ways of vitalizing school work.

Kern, O. J., *Among Country Schools*. Ginn and Company, Boston. 1906. \$1.50.

This book deals with country-school problems from the teacher's viewpoint, and is especially emphatic in its advocacy of improved school surroundings.

Hart, Joseph K., *Educational Resources of Village and Rural Communities*. The Macmillan Company, Chicago. 1913. \$1.00.

The title well describes the purpose and character of this excellent source book. The chapters do not so much furnish material in detail as they give suggestions that may lead to effective local surveys. The bibliographies are excellent.

Charters, W. W., *Teaching the Common Branches*. Houghton, Mifflin Company, Boston, New York, Chicago. 1913. \$1.35.

This book ought to help the pedagogy of the teachers of the so-called common branches. In a refreshingly simple and common-sense treatment it touches upon the motive, method, and mechanics that make instruction in the common branches effective.

Cubberley, Elwood P., *Rural Life and Education*. Houghton, Mifflin Company. 1914. \$1.50 net.

This is an important book. It treats in a comprehensive way the various aspects of the rural-school problem as a phase of the rural-life problem. It is easy in style, and scientifically accurate. The chapters are followed by lists of topics for supplementary discussion, and the book closes with a good short bibliography.

Betts and Hall, *Better Rural Schools*. The Bobbs-Merrill Company. 1914. \$1.25 net.

This is a good book for the teacher. It covers practically every aspect of the movement for better rural schools. It is profusely illustrated, and it gives numerous actual examples of the better way. Its treatment of the subject of consolidation is one of the best in print.

Bulletins and Reports.

Every training department should have access to recent N. E. A. reports, to the educational bibliographies and publications issued by the Bureau of Education, Washington, D. C., to the publications of the Department of Agriculture, Washington, D. C., and to the bulletins issued by the Agricultural College of the University of Minnesota, St. Anthony Park, St. Paul, Minn.

The University of Minnesota

CURRENT PROBLEMS

NUMBER 3

MINNESOTA PUBLIC UTILITY RATES GAS - ELECTRIC - WATER

COMPILED IN THE MUNICIPAL REFERENCE BUREAU
OF THE GENERAL EXTENSION DIVISION

BY

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MINNEAPOLIS

Bulletin of the University of Minnesota
October 1914

PREFACE

Since the organization of the Municipal Reference Bureau a number of inquiries have been received asking for comparative data on the operation of public utilities in Minnesota municipalities. It is the aim of this bulletin to provide this information. Questionnaire blanks were sent to the villages and cities of Minnesota having over 500 population. The rate schedules as herein published have been compiled from the replies received to these inquiries.

The report contains the public utility rates of most of the Minnesota towns. With the co-operation of municipal officials it has been possible to obtain fairly detailed information, 214 of the 261 villages and cities filling out the blanks submitted. The returns from the larger cities are practically complete, there being but one city of over 3,000 population that is not included in the compilation.

The rate schedules vary so much in form and detail that it has been impossible to present the material in the form of tables. The information is classified, therefore, under the main divisions, Gas Rates, Electric Rates, Water Rates, and arranged alphabetically according to the cities served. The populations are those given in the 1910 census.

The amount of use which may be possibly made of comparative rate schedules must depend upon the conditions under which the utilities are operating. It is realized that each utility faces local conditions, which are in some respects different from those confronting other utilities. The accessibility of comparative schedules, it is hoped, will be of value to those interested in the question of utility rates. The inspection of schedules published here would lead one to believe that in some cases a great deal of reliance has been placed on what the rates were in other places, and there undoubtedly have been instances where the rates were copied, in the main, from those in other cities.

This compilation is aimed to furnish the facts with regard to rates in Minnesota. These rates, to be of value, must, of course,

be studied in the light of the local conditions under which each utility operates.

In the preparation of the rate inquiries and in tabulating and checking the schedules I had the generous help of Mr. Charles W. Pfeiffer, graduate student in Economics. Thanks are also due to the municipal officials of Minnesota. This report has been made possible through their assistance. Like other issues in this series, its publication is supported by the Research Funds granted by the Legislature.

G. A. GESELL

University of Minnesota

September 1, 1914

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MINNESOTA PUBLIC UTILITY RATES

GENERAL CONCLUSIONS

EXTENT OF MUNICIPAL OWNERSHIP

Minnesota shows a higher percentage of municipally owned public utilities than any other state in the Union. The rates of 352 gas, electric, and water plants are presented in this report. Of these units 240 are operated by municipalities, 112 are privately owned.

	Private Plants	Municipal Plants
Electric	86	81
Gas	18	16
Water	8	153

Municipal ownership of water utilities is almost universal in Minnesota. One hundred and fifty-three villages and cities reported public ownership; only eight cities filed their rates under private operation. There are about forty additional water plants, confined in the main to municipalities having under 500 population, whose rates are not tabulated in this report. Water plants in these smaller towns are designed primarily for fire protection and it is fair to assume, therefore, that they are operated by the municipalities.

The following eight cities have privately owned water-works systems: Cass Lake, Coleraine, Crookston, Hutchinson, Little Falls, Proctorknott, Rochester, Sandstone.

McGraw's *Electrical Directory* and Brown's *Directory of American Gas Companies* are annual inventories, by states, of the gas and electric industries. Not since the publication of Baker's *Manual of Water Works* in 1897 have we had a directory of water utilities, and comparisons by states, as to the extent of municipalization, are therefore impossible. Sixteen hundred, or a little over 50 per cent of the plants listed in Baker's *Manual*, were privately owned. Of the 92 Minnesota water utilities, 11 were privately owned. Only one other state, Nebraska, showed as large a percentage of public ownership. Our sister state, Wisconsin, reported 30 of its plants privately owned. In a recent report of public utility rates in Wisconsin, 158 water

plants are listed. Of this number, 29, affecting a population of 269,957, are privately owned. The eight private plants in Minnesota serve an aggregate population of 31,534.

Thirty-four gas plants are included in this report. Of these, 16 are municipal units, 18 are private plants. In a bulletin on the manufacture of illuminating and heating gas for 1909, reprinted as a part of the Thirteenth Census, 15 Minnesota plants are listed under corporate organization and 26 under municipal. Referring to the form of ownership by states, the report says: "It will be noted that, except for Minnesota, where gas works operated by municipalities outnumbered all others, corporate ownership predominates over all other forms." Seven of the municipal plants included in the census survey are found in towns of less than 500 population. This accounts for the apparent discrepancy in numbers between this compilation and the government's report.

Duluth, purchasing its gas from the Zenith Coke Company, is the only municipal plant of importance in the State. The other municipal plants are confined to villages and cities of less than 2,000 population. Seventeen private plants are in cities of over 3,000 population. About 4,050,000,000 cubic feet of gas were sold in Minnesota in 1913. Duluth sold 340,000,000 cubic feet. The other municipal plants combined sold less than 15,000,000 cubic feet. The Minneapolis Gas Light Company alone sold 2,149,436,016 cubic feet, more than half the State's total production.

MINNESOTA GAS PLANTS

Privately Owned

	Population Census 1910		Population Census 1910
Albert Lea	6,192	North Mankato	1,279
Austin	6,960	Owatonna	5,658
*Crookston	7,559	Red Wing	9,048
Excelsior	1,015	Rochester	7,844
Faribault	9,001	St. Cloud	10,600
Hallock	910	St. Paul	214,744
Mankato	10,365	South St. Paul.....	4,510
Minneapolis	301,408	Stillwater	10,198
Moorhead	4,840	West Minneapolis	3,022
Northfield	3,265	Winona	18,583

Rates not included in this report.

MINNESOTA GAS PLANTS—Continued

Municipally Owned

	Population Census 1910		Population Census 1910
*Ada	1,432	Heron Lake	803
*Adams	576	Houston	700
*Battle Lake	567	Lake Benton	844
*Bird Island	931	Lamberton	652
Canby	1,528	Madelia	1,273
Carver	571	*Monticello	858
*Cottonwood	770	*Mountain Lake	1,081
*Dodge Center	957	Norwood ..	522
Duluth	78,466	Renville	1,182
Elmore	795	*Slayton	850
Hayfield	586	West Concord	584
Hector	866		

McGraw's *Electrical Directory* (October, 1913) contains a summary of the electric light plants in the United States. Fourteen hundred and forty-three, or 25.2 per cent of the total of 5,641, are municipal plants. Minnesota with 190 plants is credited with an equal number of municipal and private plants. Below are given the three states showing the highest ratio of municipal to private plants.

State	Total Number of Plants	Number of Municipal Plants
Georgia	126	69
Mississippi	80	41
Minnesota	190	95

MINNESOTA ELECTRIC PLANTS

Municipal Plants

Adrian	Brainerd	Fosston	Melrose
Aitkin	Breckenridge	Gaylord	Milaca
Albany	Brownton	Hawley	Moorhead
Alexandria	Buffalo	Jackson	Mountain Iron
Anoka	Puhl	Kasson	Nashwauk
Appleton	Caledonia	Lake City	New Prague
Argyle	Chaska	Lakefield	New Ulm
Arlington	Delano	Lanesboro	North St. Paul
Aurora	Detroit	Litchfield	Ortonville
Austin	East Grand Forks	Long Prairie	Paynesville
Barnesville	Elbow Lake	Luverne	Pelican Rapids
Baudette	Ellsworth	Madison	Perham
Benson	Fairfax	Mahnomen	Pierz
Biwabik	Fairmont	Marble	Preston
Blue Earth	Fergus Falls	Marshall	Princeton

*Rates not included in this report.

MINNESOTA ELECTRIC PLANTS *Continued**Municipal Plants*

Rochester	Shakopee	Thief River Falls	Walker
Roseau	Sherburne	Tracy	Warren
Rushford	Sleepy Eye	Two Harbors	Wells
St. Charles	Springfield	Virginia	Willmar
St. Peter	Staples	Wadena	Winnebago

Worthington

Private Plants

Albert Lea	Faribault	Lindstrom	Pine City
Annandale	Farmington	Little Falls	Pine Island
Belle Plaine	Frazee	Lyle	Plainview
Bemidji	Fulda	McIntosh	Proctorknott
Cambridge	Glencoe	Madelia	Red Lake Falls
Canby	Glenwood	Mankato	Red Wing
Cannon Falls	Graceville	Mapleton	Renville
Carleton	Grand Meadow	Minneapolis	Royalton
Cass Lake	Harris	Minnetonka	St. Cloud
Chatfield	Hastings	Montevideo	St. Paul
Chisholm	Henning	Montgomery	Sandstone
Clarkfield	Hinckley	Morgan	Sauk Center
Cloquet	Howard Lake	Morris	South St. Paul
Cold Spring	Hutchinson	Mountain Lake	Spooner
Coleraine	International	New Richland	Spring Valley
Crookston	Falls	North Branch	Stillwater
Dassel	Janesville	North Mankato	West Minneapolis
Deer River	Jordan	Northfield	Wheaton
Deerwood	Kasota	Nymore	White Bear
Duluth	Kenyon	Osakis	Winona
Eveleth	Lake Crystal	Owatonna	Zumbrota
Excelsior	Le Sueur Center	Park Rapids	

MINIMUM BILLS

In the operation of public utilities there are certain costs which are directly chargeable to individual consumers and which it appears from the general practice of the utilities should be borne by the customers for whom the expenses are incurred. These expenses, because of their particular application and the further fact that they vary directly with the number of consumers, are commonly called "consumer" expenses. The minimum charge is designed to cover those costs which remain constant from month to month and which have little or no relation to consumption or to other causes aside from the fact that the consumer is in a position to receive service. The expense of removing and resetting meters, maintenance of service, mainte-

nance of meters, collection salaries, reading meters and delivering bills, collection supplies, are some of the expenses that are in no sense output costs. These expenses are directly proportional to the number of metered consumers except in so far as they are also affected by the size of service and of meter and the consequently larger direct expenses. Interest, taxes, and depreciation on the cost of meters (assuming that the companies or municipalities own the meters) are of a similar nature and should be provided for in the minimum bill. In addition to these items it is usually held that the minimum charge should be high enough to cover the cost of the average amount of water, gas, or electric current consumed by the class of consumers who take the minimum rates. To make this clear let us assume that a gas customer's consumer expenses are 40 cents per month and that he uses gas to the amount of 30 cents. A minimum bill of 40 cents would not cover the output cost. It follows, therefore, that if the company is to be reimbursed for the gas used, the minimum bill must be high enough to cover the fixed costs and also the average value of the gas used by the class of consumers who, in general, use the smallest amount of gas.

The electric utilities in Minnesota, with a few exceptions, have minimum bills ranging from 25 cents to \$1.50 per month, the customary charge being \$1.00. The gas minima are 25 cents, 50 cents, 75 cents and \$1.00 per month. A number of municipalities do not impose minimum charges on their water consumers; but where such charges are in use they vary from \$1.00 to \$12.00 per year.

It is impossible to pass upon the reasonableness of a particular minimum without knowing the facts applicable in the specific case. Ownership of meters and service pipes by consumers instead of by the utilities may account for some of the low minimum rates. A minimum charge of \$1.00 per month for water would appear, however, to be excessive and unreasonable, except, possibly, in very unusual cases.

The minimum bills in force in Minnesota are generally uniform for all consumers regardless of the demand for service or the investment in installation. A few cities, notably Winona and St. Paul, have graduated minimum bills varying the charges with the size of meters, as shown on the following page:

ST. PAUL			
Meters	Minimum Monthly Rates	Meters	Minimum Monthly Rates
3-inch.....	\$0.30	3-inch.....	\$4.50
4-inch.....	.35	4-inch.....	8.00
1 -inch.....	.50	6-inch.....	18.00
1½-inch.....	.80	8-inch.....	32.00
1½-inch.....	1.10	10-inch.....	50.00
2 -inch.....	2.00	12-inch.....	72.00

WINONA

Size of Meters	Minimum Monthly Rates
3-inch, one faucet.....	\$0.25
2-inch, two or more faucets.....	.50
1-inch.....	.75
1 -inch.....	2.25
2 -inch.....	3.25

Two reasons are assigned for graduated minimum charges. It is argued that the minimum bill is, in part, a meter rental and ought therefore to be based upon the interest, depreciation, and maintenance of meters installed. This investment varies with the size of meters and logically the minimum bill should vary with the value of the installation.

There is another factor which would appear to justify the Winona and St. Paul schedules. Consumer and output expenses have been briefly touched upon in this section. In addition to these elements there is a third, capacity or demand, affecting operating costs. Water utilities in common with all public utilities must be constructed and operated to meet the maximum demands made upon them. Fires must be kept up, boilers and pumps must be maintained, standpipes must be constructed. To meet these requirements additional expenses must be added to the operating costs. In graduating their minimum bills the water departments of Winona and St. Paul recognize these three elements of demand, output, and consumer. The St. Paul consumer with six-inch service may not use any more water than the consumer with $\frac{5}{8}$ -inch service, but the consumer with six-inch service is subject to a higher minimum, first, because the consumer expenses are higher and, second, because he is in a position to demand and, normally, will demand more of the capacity of the plant.

FLAT AND METER RATES

As will be noted from an examination of the detailed schedules published in this bulletin, the meter basis of selling gas is used exclusively in the Minnesota cities listed. In the electric utility field the meter rate is used rather generally, but not exclusively. Many of the users of electric current are supplied at a flat rate, usually based upon the number of lights installed or upon the total wattage of the consumer's connected load. The sale of water by the utilities of Minnesota still follows to a large extent the method developed in the earlier days of the water-works business, when flat rates were in general use. No complete analysis of the reasons for the existence of the flat-rate system of rates or for the meter-rate system is practicable within the limits of this publication, but a statement of a few of the factors determining the method of sale may be of interest.

In the gas business what are known as output expenses constitute a relatively large part of total expenses. That is, a large part of the expenses of the utility vary with the amount of gas produced, and, within certain rather wide limits, it may be said that the addition of each unit of plant "send-out" causes the addition of an almost equal amount to the operating expenses. When a water plant is in full operation, under normal conditions, an increase of 10 per cent in the pumpage will increase the expenses only slightly. An increase of 10 per cent in the "send-out" of a gas utility, however, will increase the operating expenses immediately to a considerable extent. Naturally, then, any waste of gas, such as would follow the use of a flat-rate schedule, would cause a very sharp increase in expenses. As a result, the meter rate has come to be recognized as the only satisfactory method of selling gas.

What is true of the gas utilities is also true, though in lesser degree, of electric utilities. Increases in output have a very marked effect on expenses, particularly where current is generated by steam power. Where hydraulic power is plentiful, the expenses of electric plants are mostly fixed and increases in output such as result from unnecessary use of current under flat rates, are not serious, until the point is reached where the excessive use puts a strain upon the plant's capacity.

The water-supply business is largely a business of fixed expenses. When all parts of the system, the source of supply, the pumping equipment, and the distribution system are adequate, the operating expenses respond only slightly to variations in pumpage. For this reason the waste of water under flat rates, as far as it affects the cost of the business, is not as serious as might be supposed. The danger in the flat-rate plan of selling water is the danger of overtaxing the plant capacity. This danger is particularly serious where the source of supply is not capable of expansion to meet increased demands.

In those lines of utility business which approach most closely to ordinary manufacturing industries, and in which the cost varies materially as the output varies, the meter rate is almost a necessity, but the flat-rate plan will often answer the needs of utilities whose expenses are mostly fixed.

The decision in favor of a flat-rate or of a meter-rate system of charges in utilities with relatively high fixed expenses must be reached from a study of many elements aside from cost. There is no question that a meter rate for water under which each consumer pays for what he uses more nearly fits the accepted standards of equitableness than a rate under which consumers may receive widely different amounts of the product or service of the utility at the same price. But the abstract justice of a meter rate often has to yield to concrete objections. From the reports of Minnesota water plants it appears that 102,711 consumers are supplied through meters, and 33,291 are on flat rates. Of the metered consumers about 77,500 are in the cities of Minneapolis, St. Paul, and Duluth. Outside of these cities the flat-rate users outnumber those on meters.

The severity of the Minnesota winters, which makes the risk of injury to water meters from frost a serious one, probably has a good deal to do with the prevalence of the flat-rate schedule. A severe winter is disastrous to water utilities which use meters, but it also puts a burden upon flat-rate systems because the water which is allowed to waste to prevent freezing often severely taxes the capacity of the system.

The types of water meters in most general use are listed at about \$8.40 per meter for a $\frac{5}{8}$ -inch size, the size most commonly used. When the cost of installing is added, the interest, depreciation, and maintenance costs will often more than offset

any saving in general operating expenses which would result from general metering. Many utilities, it will be noted, have part of their consumers supplied through meters and part on a flat rate. The installation of meters on certain classes of premises and upon individual services where waste of water has been detected is almost a necessity, but complete metering is probably a long way off for the majority of Minnesota water plants.

TYPES OF RATES

Gas.—The meter rates for gas show very little variety. The rates are either uniform for all quantities of gas consumed or else they are straight increment schedules, under which the price for uses in excess of a given quantity or quantities is lower for the added increments of consumption than it is for the first increment.

A variation of these types of schedule is found in a few cities, among which are St. Cloud and Stillwater, where a double-meter system is maintained with a different rate for fuel gas than for gas for illuminating purposes. The tendency in the gas business seems to be toward the abandonment of the double-meter system, on account of the additional cost of having two meters to do the work of one, and because there is no difference in the cost of supplying gas for these purposes which would make such a rate advisable. Other factors leading toward this condition are probably the more general use of electricity for lighting and the extension of the use of gas for cooking and other fuel purposes, which have made it unnecessary for the utilities to continue to offer lower rates in order to secure the fuel business.

Another departure from the general schedules is found in Duluth where a low rate is offered for gas used for industrial purposes. Industrial users, as a class, are large users, and the low rate for this purpose is generally given by means of an increment schedule with a low rate for added increments of consumption. A schedule such as that in Duluth relieves the industrial user of the necessity of paying for the first increments of his consumption at the rates which would be paid by general users taking the same amount of gas. The low rate to industrial users appears to be a "business getter", that is, it is a rate offered in order to attract a class of business which will add to

the total profits of the utility, although the profit on each unit of sales may be less than that on gas sold for ordinary fuel or illuminating purposes.

Electric.—One noteworthy feature of Minnesota electric rates is the infrequency with which "demand" schedules are encountered. The schedules in use in Minnesota are, in general, similar to those for gas, that is, they are either uniform for all quantities used or they afford lower rates based only on increased volume of consumption. There are a few exceptions to this. Illustrative of these exceptions are the schedules at Crookston, Graceville, Litchfield, and Minneapolis. There are a number of other schedules which embody the demand element, but these will be sufficient to illustrate the difference between these schedules and the ordinary increment rate.

The usual increment rate favors the large consumer. Where the only requirement for securing a low rate is the use of a certain number of kilowatt-hours of current, the larger consumers receive the lower rate regardless of the conditions under which they make their demand.

The advantage claimed for the demand rate is that it offers the lower rate to the consumer who uses his current under conditions which put the most favorable load upon the plant rather than to the consumer who uses a large amount of current, possibly at unfavorable times. To illustrate, it may be assumed that a consumer with 100 kilowatts installed uses current one hour per day. His monthly consumption would be 3,000 kilowatt-hours, but unless his use were a very unusual one he would be using current during the time of the day when the demand upon the plant was greatest. Another consumer with an installation of 10 kilowatts would have to use his installation 10 hours per day in order to use an equal amount of current. The greater part of his use would be made during "off-peak" hours when the demand on the generating station is light.

Under the ordinary increment schedule both consumers would pay the same rate, but under any form of demand rate the consumer using his load for the longer time or using the greater amount of current in proportion to his demand would get the lower rate, on the theory that the utility can furnish "off-peak" service for less than "peak-load" service. In the illustration given the smaller consumer could make only one tenth the de-

mand of the larger consumer and consequently uses his current under conditions relatively favorable to the utility.

The demand rate takes various forms, several of which are in use in Minnesota cities. Crookston has a consumer charge of \$1.00 per month and a demand charge of \$3.00 per kilowatt of demand per month, with a rate of 5 cents per kilowatt-hour for all current used for commercial lighting. The effect of this schedule is to spread the fixed charges over an increasing number of units as the use of current in proportion to demand increases, so that the total charge per unit of current is lower for long-hour than for short-hour users.

Graceville has a rate for commercial lighting which is reduced from 12 cents to 6 cents per kilowatt-hour after 32 hours' use per month of the active lights, and to 3 cents after an additional 64 hours' use. The reduction is dependent upon the length of time the lights are used and not upon the quantity of current. Under the Graceville rate a consumer, such as a small residence with 200 watts of active load, would get the six-cent rate after using 6.4 kilowatt-hours per month, and the three-cent rate on all above 19.2 kilowatt-hours. A consumer with an active installation three times as large would pay the twelve-cent rate on 19.2 kilowatt-hours and would get the three-cent rate only after using 57.6 kilowatt-hours. Similarly, a consumer with an active installation of 100 kilowatts would pay the primary rate on 3,200 kilowatt-hours, and the secondary rate on the next 6,400 kilowatt-hours. It will be seen from this that the demand rate does not favor the large consumer, but rather favors the consumer whose use is large in proportion to his demand, or, in other words, the long-hour user. The Graceville power rate is also illustrative of a demand rate.

Litchfield has a rate which is a demand rate in form but the secondary step is not reached until after two hours' use per day of the maximum demand. Since residence users, as a class, use current equivalent to less than two hours' use per day of their maximum demand it will be seen that the Litchfield rate does not give the general run of small consumers the advantages claimed for the demand rate.

Still another form of demand schedule is illustrated by the residential lighting rate in Minneapolis. Under this rate the first three kilowatt-hours per room per month come under the

primary rate. If a residence has rooms with a small number of lights in each, it would be necessary to use the lights a longer time per month to get above three kilowatt-hours per room than would be necessary in a residence better equipped. That is, residences of the poorer classes have less chance of getting the secondary rate than residences with a large number of lights per room. The "room basis" rates would treat all classes alike if all classes had equal lighting installations per room, but as this is not the case, the wealthier class, or the class with the greatest installation per room, derives a greater advantage from this form of schedule than do other classes. The Minneapolis retail power rate is also a demand rate, but the general lighting schedule is a straight increment rate.

These illustrations are sufficient to point out three of the more important types of demand schedules. One type consists of a "service charge" per unit of demand and a uniform rate for current; one consists of a step rate with the steps dependent upon the length of time the installation is in use; and, in the third, the room is accepted as the unit of demand, regardless of either the installation or the actual demand.

Power rates, in general, are lower than lighting rates. The reasons for this are various but the more important of them may be briefly stated here. Power is usually "off-peak" service, although instances are occasionally found where it constitutes the greater part of the station load. As "off-peak" service it can be furnished more cheaply than lighting service because it does not add to the equipment and labor required at the station. A rate for power as high as the lighting rate would ordinarily be prohibitive. Consequently the power rate must be low enough to meet the potential competition of independent power plants. Power uses, in addition to being "off-peak", are often long-hour uses, so that whatever fixed expenses are to be borne by the power rate are divided over a large number of units of current.

Water.—A discussion of the water rates in Minnesota, however brief, would not be complete without mention of the rates for the two principal classes of service furnished. Almost all, if not all, of the water plants in the State furnish fire protection as well as water for general uses.

The practice with regard to charging for fire protection varies

greatly. As has been pointed out nearly all of the water plants in the State are municipally owned. In these plants the charges for fire protection vary from nothing to an amount covering the entire cost of the services. Many of the cities have apparently proceeded on the theory that, as deficits arising from plant operation have to be made up by the city in any case, nothing would be gained by the formality of charging the cities for fire protection. Others have recognized that the city should make some payment for the service and have appropriated various amounts for this service.

Water-works men are not unanimous in approving any single method of determining the cost of fire protection, but many of the leading water works engineers have used methods of apportionment which indicate that the cost of fire protection is, roughly, from \$1.00 to \$1.50 per capita per year for the general run of water plants. Judged by this standard, cities such as Anoka, with \$3,700 paid for fire protection and a population of about 3,900, Northfield with 3,200 people and \$2,700 paid, and a few others in the State are paying about the full cost of fire protection.

Whatever may be said regarding the practical necessity of cities paying for fire protection, it is true that the municipal plant can not fairly be compared with the private plant unless the former has the same sources of revenue as it would have if privately owned. Also there is probably some justice in the claim that where cities do not pay their proper share for fire protection there may, in some instances, be a tendency to require private consumers to pay more than their fair share of the expenses of the business.

The meter rates for water are, in general, graded in such a way that the larger consumer gets a lower rate per unit, although there are a number of plants which have a uniform rate. The most general type of meter rate is similar in form and application to the gas rates discussed above. There is, however, another type of water meter rate in use in a few cities which should be mentioned here. This is what is generally known as a "regressive" rate. Under this type of rate it is possible for a consumer to use a large amount of water for a less payment than he would have to make for a somewhat smaller amount. This situation arises from the fact that when a consumer uses enough

water to entitle him to the advantage of one of the lower steps of the rate schedule, that rate is applied to his entire consumption, instead of the first increment being billed at the higher rate. These schedules are sometimes indefinitely worded and instances sometimes arise where schedules worded alike are interpreted differently, so that in one city the regressive feature would be eliminated and, in another, retained. An examination of the schedules indicates, however, that there are a number of these regressive schedules in Minnesota. One type of schedule which is often applied in a regressive manner is illustrated by the following:

0 to	300 gallons per day,	30 cents per 1,000 gallons
300 to	500 gallons per day,	25 cents per 1,000 gallons
500 to	1,000 gallons per day,	20 cents per 1,000 gallons
1,000 to	5,000 gallons per day,	15 cents per 1,000 gallons
5,000 to	10,000 gallons per day,	10 cents per 1,000 gallons

A clearer wording of such a schedule would be:

First	300 gallons per day,	30 cents per 1,000 gallons
Next	200 gallons per day,	25 cents per 1,000 gallons
Next	500 gallons per day,	20 cents per 1,000 gallons
Next	4,000 gallons per day,	15 cents per 1,000 gallons
Next	5,000 gallons per day,	10 cents per 1,000 gallons

The general features of the flat-rate schedules are quite similar to those found in the water-supply business generally. The various classes of premises supplied are usually classified and a basic rate which usually covers the water used through one faucet is applied. The fixtures to be supplied in the various classes of premises are also classified and a rate applied to each. In some instances, in addition to the basic rate and the fixture rate, the size of the premises is also taken into account, and a rate for each room above a specified number is applied. In other cases the consuming unit is used. In factories there may be a charge for each hand employed. In other classes of premises there may be a charge per horse, or per cow, or per barrel of product.

The great variety of flat-rate charges illustrates the difficulties which are found in adapting flat rate schedules to all conditions of use. Often, after all means of classification is exhausted, there remain certain classes of consumers which are listed as

"special", for whom the utility must either make rates entirely outside of the general structure of the rate schedule or supply service through meters.

GAS RATES

ALBERT LEX (6,192*)

Minnesota Gas and Electric Company

Production, water gas

Amount of gas sold, 5,986,260 cu. ft. (5 months)

Daily capacity of plant, 65,000 cu. ft.

Capacity of holders, 25,000 cu. ft.

Miles of mains, 15

Number of consumers, 900

Rates

\$1.50 per 1,000 cu. ft. gross

10% discount for amounts over 20,000 cu. ft.

Discount of 10% on bills paid within 10 days of rendering of bills

AUSTIN (6,960)

Austin Gas Company

Production, water gas

Amount of gas produced per year, 17,000,000 cu. ft.

Daily capacity of plant, 100,000 cu. ft.

Capacity of holders, 67,000 cu. ft.

Number of miles of mains, 15

Number of consumers, 900

Rates—

\$1.60 per 1,000 cu. ft. gross, \$1.50 net

Minimum bill, 50 cts. per month

CANBY (1,528)

Municipal Plant

Production, gasoline

Amount of gas sold, about \$500

Production, gasoline, about \$500

Number of consumers, about 30

Rates—

\$1.50 per 1,000 cu. ft.

CARVER (571)

Municipal Plant

Production, acetylene

Amount of gas sold, between \$1,200 and \$1,300

Daily capacity of plant, 2,000 lights

Miles of mains, $3\frac{1}{2}$

Number of consumers, 64

Street lighting

Number of lamps, 68

Charge to municipality, 90 cts. per 100 cu. ft. (\$31.50 per month for 1913)

Burning schedule, darkness until 11 p.m.

Rates—

90 cts. per 100 cu. ft.

DULUTH (78,400)

Municipal Plant

Gas purchased from Zenith Furnace Company

Amount of gas purchased, 300,000,000 cu. ft.

Amount of gas sold, 300,000,000 cu. ft.

Daily capacity of plant, 1,500,000 cu. ft.

Capacity of holders, 500,000 cu. ft.

Miles of mains, 127

Number of consumers, 9,000

Street lighting—

Number of lamps, 162

Type used, Welsbach mantles

Charge to municipality, 93 cts. per month

Rates

Minimum monthly bill, 25 cts.

Illumination and cooking, 75 cts. net per 1,000 cu. ft.

Heating and manufacturing, 50 cts. net per 1,000 cu. ft.

ELMORE (794)

Municipal Plant

Production, gasoline

Number of consumers, 25

Street lighting—

Number of lamps, 20 mantles

Charge to municipality, \$600 per year

Burning schedule, from darkness till 10:30 p.m.

Rates—

\$1.00 per 1,000 cu. ft.

EXCELSIOR (1,015)

Citizens Gas Company

Production, crude oil

Miles of mains, between 2 and 3

Number of consumers, about 100

Rates—

Minimum bill, \$1.00 per month

\$2.25 per 1,000 cu. ft.

Discount of 25 cts. per 1,000 cu. ft. allowed on all bills paid before the 10th of month

FARIBAULT (9,001)

Consumers Power Company

Production, coal gas

Amount of gas produced, 24,000,000 cu. ft. (1912 output)

Amount of gas sold, 22,000,000 cu. ft. (1912)

Daily capacity of plant, 150,000 cu. ft.

Capacity of holder, 66,000 cu. ft.

Miles of mains, 22

Number of consumers, 1,100

Rates—

Up to 10,000 cu. ft. per month, \$1.50 per 1,000 cu. ft. gross,
\$1.30 net

10,000 to 25,000 cu. ft. per month, \$1.50 per 1,000 cu. ft. gross,
\$1.20 net
25,000 to 50,000 cu. ft. per month, \$1.50 per 1,000 cu. ft. gross,
\$1.10 net
50,000 to 100,000 cu. ft. per month, \$1.50 per 1,000 cu. ft.
gross, \$1.00 net
100,000 cu. ft. and over, \$1.50 per 1,000 cu. ft. gross, 90 cts.
net

HALLOCK (910)

Hallock Light Company

Production, acetylene

Street lighting—

Number of lights, 35

Charge to municipality, 2 cts. per cu. ft.

Rates—

2 cts. per cu. ft.

HAYFIELD (586)

Municipal Plant

Production, gasoline

Amount of gas produced, 1,200,000 cu. ft.

Amount of gas sold, 1,050,000 cu. ft.

Miles of mains, 4

Number of consumers, 50

Street lighting—

Number of lamps, 22 Miner street lamps

Charge to municipality, about \$1.00 per month

Burning schedule, 4 all night, rest from darkness to midnight

Rates—

\$1.00 per 1,000 cu. ft.

HECTOR (866)

Municipal Plant

Production, gasoline

Number of consumers, 34

Rates—

\$1.75 per 1,000 cu. ft.

No discount

HERON LAKE (803)

Municipal Plant

Production, gasoline

Amount of gas sold, 2,154.04 cu. ft., not including street lighting

Miles of mains, 3

Number of consumers, 102

Street lighting—

Number of lamps, 38 Boulevard Peerless burners

Charge to municipality, \$300.00 per annum

Burning schedule, 16 days per month, burning 5 hours per night

Rates—

80 cts. per 1,000 cu. ft.

No discounts

HOUSTON (700)

Municipal Plant

Production, gasoline

Amount of gas sold, \$1,613.05 (1913)

Miles of mains, 2

Number of consumers, 125

Street lighting—

Number of lamps, 22

Rates —

\$1.50 per 1,000 cu. ft.

LAKE BENTON (844)

Municipal Plant

Production, gasoline

Amount of gas produced, about 900,000 cu. ft. (1913)

Amount of gas sold, about 600,000 cu. ft.

Miles of mains, 3

Number of consumers, 53

Rates—

\$1.50 per 1,000 cu. ft.

No discounts

LAMBERTON (652)

Municipal Plant

Production, gasoline

Amount of gas produced, \$2,600

Amount of gas sold, \$2,000

Miles of mains, 3

Number of consumers, 150

Street lighting—

Number of lamps, 27

Burning schedule, 5 hours

Charge to municipality: "The deficiency is charged up to street lighting"

Rates

\$1.40 per 1,000 cu. ft.

MADLIX (1,273)

Municipal Plant

Production, gasoline

Amount of gas produced, 250,000 cu. ft.

Street lighting—

Number of lamps, 39

Charge to municipality: "Costs the village about \$10 per light annually"

Rates—

\$1.40 per 1,000 cu. ft.

MANKATO (10,365)

Consumers Power Company

Production, coal gas

Amount of gas produced, 44,521,000 cu. ft. (year ending Dec. 31, 1913)

Amount of gas sold, 38,822,800 cu. ft. (includes North Mankato)

Daily capacity of plant, 175,000 cu. ft.

Capacity of holders, one, 100,000; one, 150,000 cu. ft.

Miles of mains, 19.77 (includes North Mankato)

Number of consumers, 1,669

Rates—

Domestic:

Minimum monthly charge, 50 cts.

\$1.50 per 1,000 cu. ft.

Discount, 16 $\frac{2}{3}$ % if paid within 10 days

Commercial (meter rate):

Cu. Ft. per Month	Gross per 1,000 Cu. Ft.	Net per 1,000 Cu. Ft.
0 to 25,000.....	\$1.50	\$1.25
25,000 to 50,000.....	1.50	1.10
50,000 to 100,000.....	1.50	1.00
100,000 to 200,000.....	1.50	.95
200,000 to 300,000.....	1.50	.90
300,000 and over.....	1.50	.85

Net rate applies if paid within 10 days

MINNEAPOLIS (301,408)

Minneapolis Gas Light Company

Production, coal and water gas

Amount of gas sold, 2,149,436,016 cu. ft. (1913)

Capacity of holders, 9,000,000 cu. ft.

Miles of mains, 487.712

Number of consumers, 68,150 (Jan. 1, 1914)

Street lighting—

Number of lamps, 5,387

Type of lamps, Welsbach

Charge to municipality, \$10 per lamp per year for lighting, extinguishing, and maintenance

\$8.60 for gas at 65 cts. per 1,000 cu. ft. (1913)

Burning schedule, 4,033 hours for 1913

Rates

\$1.00 per 1,000 cu. ft. gross, 85 cts. net for 1913; new rate fixed by city council for Sept. 1, 1913, but not published on account of injunction until Nov. 8, 85 cts. gross, 70 cts. net; final compromise 80 cts. for 21 months commencing April 1, 1914, and 77 cts. thereafter for 34 months

MOORHEAD (4,840)

Union Light, Heat and Power Company

(Plant located in Fargo, N. D.)

Production, coal gas

Amount of gas sold, 11,649,200 cu. ft.

Miles of mains, 9.2

Number of consumers, 481 (Jan., 1914)

Rates--

Minimum bill, 50 cts. for meter

First 10,000 cu. ft. at \$1.50 per 1,000 cu. ft.

Next 15,000 cu. ft. at \$1.30 per 1,000 cu. ft.

Next 25,000 cu. ft. at \$1.20 per 1,000 cu. ft.

Next 50,000 cu. ft. at \$1.10 per 1,000 cu. ft.

All over 100,000 cu. ft. at \$1.00 per 1,000 cu. ft.

Discount of 10% on bills paid within 10 days of the date of billing

NORTHFIELD (3,265)

Consumers Power Company

Production, coal gas

Piped from plant at Faribault

Amount of gas sold, 8,000,000 cu. ft. (including Dundas)

Capacity of holder, 20,000 cu. ft.

Miles of mains, 12

Number of consumers, 450 (including Dundas)

Rates

Minimum monthly bill, 50 cts.

0 to	10,000 cu. ft.,	\$1.60 gross,	\$1.44 net
10,000 to	25,000 cu. ft.,	\$1.60 gross,	\$1.28 net
25,000 to	50,000 cu. ft.,	\$1.60 gross,	\$1.20 net
50,000 to	100,000 cu. ft.,	\$1.60 gross,	\$1.12 net
100,000 cu. ft. and over,		\$1.60 gross,	\$1.04 net

NORTH MANKATO (1,279)

Consumers Power Company

See Mankato

NORWOOD (522)

Municipal Plant

Production, acetylene

Amount of gas produced, 74,200 pounds of carbide used during year, costing \$2,376.84, including freight

Capacity of holders, 500 cu. ft.

Miles of mains, 3

Number of consumers, 90

Street lighting—

Number of lamps, 40

Burning schedule, moonlight

Rates—

80 cts. per 100 cu. ft.

No discount

OWATONNA (5,658)

Public Service Operating Company

Production, water gas

Amount of gas produced, 7,900,000 cu. ft.

Daily capacity of plant, 80,000 cu. ft.

Capacity of holders, 50,000 cu. ft.

Number of consumers, 390

Length of mains, 50,000 ft.

Rates -

Minimum bill, 25 cts. per meter

\$1.40 per 1,000 cu. ft. gross

Discounts:

2,000 cu. ft., 10 cts. per 1,000 cu. ft., if bill is paid by the 10th of the month

2,100 to 5,000 cu. ft., 20 cts. per 1,000 cu. ft., if bill is paid by the 10th of the month

5,100 to 10,000 cu. ft., 35 cts. per 1,000 cu. ft., if bill is paid by the 10th of the month

RED WING (9,048)

Red Wing Gas Light and Power Company
(American Utilities Company, Grand Rapids, Mich.)

Production, coal gas

Amount of gas sold, 40,000,000 cu. ft.

Daily capacity of plant, 153,000 cu. ft.

Capacity of holders, 180,000 cu. ft.

Miles of mains, 17

Number of consumers, 1,300

Rates

Minimum bill, 25 cts. per month

\$1.50 per 1,000 cu. ft.

Discount of 20 cts. for prompt payment

RENVILLE (1,182)

Municipal Plant

Production, water gas

Amount of gas produced, 2,197,300 cu. ft.

Amount of gas sold, 2,197,300 cu. ft.

Miles of mains, $3\frac{1}{2}$

Number of consumers, 138

Street lighting—

Number of lamps, 30

Type used, mantles

No charge to municipality

Burning schedule, darkness to 11 o'clock

Rates

\$1.50 per 1,000 cu. ft.

No discounts

ROCHESTER (7,844)

Private Plant

Production, coal gas

Amount of gas produced, 30,000,000 cu. ft. (estimate for 1914)

Daily capacity of plant, 200,000 cu. ft.

Capacity of holders, 67,000 cu. ft.

Miles of mains, 13

Number of consumers, 1,030

ST. CLOUD (10,600)

Public Service Company

Production, coal gas

Amount of gas produced, 17,000,000 cu. ft.

Amount of gas sold, 16,350,000 cu. ft.

Daily capacity of plant, 125,000 cu. ft.

Capacity of holders, 50,000 cu. ft.

Miles of mains, 10

Number of consumers, winter 650, summer 775

Rates

Illuminating gas: \$1.85 per 1,000 cu. ft.

Fuel gas: \$1.35 per 1,000 cu. ft.

Discount of 10 cts. per 1,000 cu. ft. on bills paid before 10th
of month next following

ST. PAUL (214,744)

St. Paul Gas Light Company

Production, coal and enriched water gas mixed

Amount of gas sold, 1,236,000,000 cu. ft. (1913)

Daily capacity of plant, 7,500,000 cu. ft.

Capacity of holders, 4,750,000 cu. ft.

Miles of mains, 279.617 (May, 1911)

Number of consumers, 30,752-33,000

Street lighting—

Number of lamps, gas 4,500, gasoline 1,200

Type of lamps, Welsbach boulevard inverted type, single burners

Charge to municipality, \$10.50 per post for one year for gas and \$11.00 for maintenance per year

\$29.85 for furnishing and maintaining gasoline lamps

Rates—

Minimum bill, 25 cts.

First 10,000 cu. ft., \$1.10 per 1,000 cu. ft. gross, 90 cts. net

Next 40,000 cu. ft., \$1.05 per 1,000 cu. ft. gross, 85 cts. net

Excess over 50,000 cu. ft., 95 cts. per 1,000 cu. ft. gross, 75 cts. net

SOUTH ST. PAUL (4,510)

South St. Paul Gas and Electric Company

Production, coal and water gas

Amount of gas purchased, 5,699,700 cu. ft.

Amount of gas sold, 5,530,500 cu. ft.

Miles of mains, 8

Number of consumers, 207

Rates—

Minimum bill, 25 cts.

First 10,000 cu. ft., \$1.25 per 1,000 cu. ft. gross

Next 40,000 cu. ft., \$1.10 per 1,000 cu. ft. gross

Excess over 50,000 cu. ft., \$1.00 per 1,000 cu. ft. gross

Discount, 10 cts. per 1,000 cu. ft.

STILLWATER (10,198)

Consumers Power Company

Production, coal gas

Amount of gas produced, 33,524,300 cu. ft.

Amount of gas sold, 28,361,000 cu. ft.

Daily capacity of plant, 220,000 cu. ft.

Capacity of holders, 200,000 cu. ft.

Miles of mains, 33.3

Number of consumers, 1,202

Rates

Illuminating gas, \$1.70 per 1,000 cu. ft. less 20%; no discount allowed unless consumption amounts to 600 cu. ft. or more

Fuel gas, \$1.30 per 1,000 cu. ft. less 20%; no discount allowed unless consumption amounts to 600 cu. ft. or more

WEST CONCORD (584)

Municipal Plant

Production, carbide gas

Length of mains, 5 blocks

Number of consumers, 25

Street lighting—

Number of lamps, 30

Charge to municipality, \$1.00 per cu. ft.

Rates

\$1.00 per cu. ft.

WEST MINNEAPOLIS (3,022)

Municipal Plant

Production, carbureted water gas

Amount of gas produced, 6,000,500 cu. ft.

Amount of gas sold, 5,000,000 cu. ft.

Daily capacity of plant, 30,000 cu. ft.

Capacity of holders, 8,000 cu. ft.

Miles of mains, 5

Number of consumers, 200

Rates

\$1.40 per 1,000 cu. ft., subject to a discount of 10%

WINONA (18,583)

Winona Gas Light and Coke Company

Production, coal gas

Amount of gas produced, 65,000,000 cu. ft.

Daily capacity of plant, 400,000 cu. ft.

Capacity of holders, 240,000 cu. ft.

Miles of mains, 34

Number of consumers, 2,955

Street lighting

Number of lamps, 170

Type of lamp used, Welsbach burners

Charge to municipality, \$25.00 per year

Burning schedule, moonlight

Rates

Illuminating gas, \$1.50 per 1,000 cu. ft., 25 cts. discount if paid
in 10 days

Industrial purposes:

20,000 to 30,000 cu. ft., \$1.00 per 1,000 cu. ft. net

30,000 to 40,000 cu. ft., 90 cts. per 1,000 cu. ft. net

40,000 cu. ft. and over, 80 cts. per 1,000 cu. ft. net

ELECTRIC RATES

ADA (1,432)

Municipal Plant

Method of generation, steam

Number of consumers, 300

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

Minimum monthly bill, \$1.00

8 cts. per kw-hr.

No discount

Street lighting—

6 arc lights

60 60-watt incandescents

City pays 8 cts. per kw-hr.

ADRIAN (1,112)

Municipal Plant

Method of generation, steam

Number of consumers, 203

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 50 cts

10 cts. per kw-hr.

No discount

Flat rates:

75 cts. (presumably per light per month)

Commercial power—

Meter rates:

Minimum monthly bill, 50 cts.

8 cts. per kw-hr.

No discounts

Street lighting—

32 5-light ornamental posts

40 tungstens. City pays 5 cts. per kw-hr.

Burning schedule, dusk till 12:30 a.m.

AITKIN (1,638)

Municipal Plant

Method of generation, steam

Number of consumers, 239

Daily operating period, sunset to sunrise

Commercial lighting—

Meter rates:

Meter rental, 25 cts. per month

10 cts. per kw-hr.

Flat rates:

50 cts. per light, \$1.00 if burning all night

No discounts

Street lighting—

100 incandescents in White Way and 30 others; burn till midnight; property is assessed \$1,000 for street lighting

ALBANY (657)

Municipal Plant

Method of generation, coal gas

Total yearly current sold, 16,410 kw-hrs.

Number of consumers, 91

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

Minimum monthly bill, 50 cts.; meter rental, 15 cts.

12½ cts. per kw-hr.

Flat rates:

Outside lights, \$1.25 per light of 32 c.p.

Street lighting—

21 incandescents

No charge to city

ALBERT LEA (1921)

Minnesota Gas and Electric Company

Method of generation, steam

Number of consumers, 1,500

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

12½ cts. per kw-hr., subject to the following discounts upon each monthly bill for each metered consumer:

5% on all gross bills over \$1.99 and to and including \$5.49

10% on all gross bills over \$5.49 and to and including \$10.99

15% on all gross bills over \$10.99 and to and including \$16.49

20% on all gross bills over \$16.49 and to and including \$21.99

25% on all gross bills over \$21.99 and to and including \$27.49

30% on all gross bills over \$27.49

For current used for power purposes exclusively in motors of 1 h.p. and over, not to exceed the following rates, for each metered consumer, 7½ cts. per 1,000 watt hours

The minimum bill for one month's service shall be \$1.11; a further discount of 10% on all bills regardless of amount whether it be minimum or over shall be allowed, if bill is paid by the 19th of the following month

Street lighting—

21 250-watt tungstens at \$45.00 per annum

119 100-watt tungstens at \$24.00 per annum

72 75-watt tungstens at \$19.50 per annum

*52 60-watt tungstens at \$11.07 per annum

*52 40-watt tungstens at \$7.38 per annum

105 40-watt tungstens at \$20.10 per annum

12 40-watt tungstens at \$15.00 per annum

Burning on a moonlight schedule with proportionate discounts from these rates when turned off on moonlight nights

*These groups burn only to 11 o'clock

ALEXANDRIA (3,001)

Municipal Plant

Method of generation, steam

Number of consumers, 400

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 60 cts.; this includes 25 cts. meter rental

First 50 kw-hrs., 10 cts. per kw-hr.

Second 50 kw-hrs., $9\frac{1}{2}$ cts. per kw-hr.

Over 100 kw-hrs., 9 cts. per kw-hr.

Penalty of 25 cts. if bill is not paid by 15th of following month

Commercial power—

Meter rates:

Minimum monthly bill, \$2.00 for 1 h.p. or 2 h.p. installation; \$3.00 for 3 h.p.; 50 cts. for each additional h.p. of installation

First 50 kw-hrs., 8 cts. per kw-hr.

Next 50 kw-hrs., 7 cts. per kw-hr.

From 100 to 200 kw-hrs., 6 cts. per kw-hr.

From 200 to 400 kw-hrs., 5 cts. per kw-hr.

All over 400 kw-hrs., 4 cts. per kw-hr.

Penalty for late payment, same as above

Street lighting

12 arcs; rate, \$75.00 per annum per arc

118 50-watt tungstens; rate, \$18.00 per annum per light

Burning schedule, all night

ANNANDALE (624)

Annandale Electric Light and Power Company

Method of generation, gasoline and kerosene

Number of consumers, 100

Daily operating period, continuous

Commercial lighting

Meter rates:

20 cts. per kw-hr.

15 cts. per month meter rental

"Practically no electricity is used for power"

Street lighting—

4 arc lights

25 40-watt incandescents; city pays \$75.00 per month

Burning on a moonlight schedule till 11:00 p.m.

ANOKA (3,972)

Municipal Plant

Method of generation, steam

Number of consumers, 510

Daily operating period, continuous

Commercial lighting—

Meter rates:

12 cts. per kw-hr. with following discounts:

On bills from \$2.50 to \$5.00, 5%

On bills from \$5.00 to \$10.00, 10%

On bills from \$10.00 to \$20.00, 20%

On bills over \$20.00, 33%

Commercial power—

Meter rates:

Minimum monthly bill, \$1.00 per h.p.

6 cts. per kw-hr. for the first 100 kw-hrs.

5 cts. per kw-hr. for the next 400 kw-hrs.

4 cts. per kw-hr. for over 500 kw-hrs.

4 cts. per kw-hr. if over 20 h.p. installation

Street lighting—

50 series incandescents bracket lamp

30 flaming arcs. City pays \$1,600 per annum

Burning on a moonlight schedule till 1:00 a.m.

APPLETON (1,221)

Municipal Plant

Method of generation, steam

Number of consumers, 263

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 50 cts.

12½ cts. per kw-hr.

10% added if not paid by 10th of following month

Street lighting—

42 mazda incandescents

Burning schedule, moonlight; to midnight

ARGYLE (744)

Municipal Plant

Method of generation, steam

Number of consumers, 120

Daily operating period, "from dusk till 12 o'clock a.m."

Commercial lighting—

Meter rates:

Minimum monthly bill, 75 cts.

12 cts. per kw-hr.

Flat rates:

25 cts. per 22-watt carbon lamp

35 cts. per 30-watt carbon lamp

40 cts. per 25-watt lamp

60 cts. per 40-watt lamp

Commercial power—

Meter rates:

Minimum monthly bill, same as for lighting

12 cts. per kw-hr. for "all motors not over 3 h.p."

Street lighting—

About 2,500 mazdas and carbons. City pays about \$135.00 a month

ARLINGTON (733)

Municipal Plant

Method of generation, steam

Number of consumers, 137

Daily operating period, 6 hours

Commercial lighting—

Minimum monthly bill, 60 cts.

10 cts. per kw-hr.

Street lighting—

28 incandescents

AURORA (1,919)

Municipal Plant

Method of generation, steam

Yearly current generated, 200,000 kw-hrs.

Number of consumers, 190

Daily operating period, 1:00 p.m. to 8:00 a.m.

Commercial lighting and power—

Meter rates:

Monthly minimum bill, 50 cts.

1 to 50 kw-hrs., 9 cts. per kw-hr.

50 to 100 kw-hrs., 7 cts. per kw-hr.

100 to 300 kw-hrs., 6 cts. per kw-hr.

300 to 500 kw-hrs., 5 cts. per kw-hr.

500 to 1,000 kw-hrs., 4 cts. per kw-hr.

Flat rates:

25 cts. for each 25-watt lamp

Street lighting—

63 100-watt series street lamps

19 5-light ornamental posts carrying 500 watts each, or 100
watts to each light

No charge made

AUSTIN (6,960)

Municipal Plant

Method of generation, steam

Number of consumers, 1,470

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 75 cts.

8 cts. per kw-hr., with the following discounts:

On bills from \$2.00 to \$5.00, 10%

On bills from \$5.00 to \$10.00, 12%

On bills from \$10.00 to \$14.00, 15%

On bills from \$14.00 to \$18.00, 20%

On bills from \$18.00 to \$23.00, 25%

On bills from \$23.00 to \$30.00, 30%

On bills from \$30.00 to \$40.00, 35%

On bills from \$40.00 to \$50.00, 40%

On bills from \$50.00 to \$60.00, 45%

On bills of \$60.00 and over, 50%

Commercial power

Meter rates:

Minimum monthly bill, \$2.00

5 cts. per kw-hr. with following discounts:

On bills from \$3.00 to \$7.50, 5%

On bills from \$7.50 to \$12.50, 10%

On bills from \$12.50 to \$25.00, 15%

On bills from \$25.00 to \$50.00, 20%

On bills from \$50.00 to \$100.00, 25%

On bills from \$100.00 to \$150.00, 30%

On bills from \$150.00 to \$200.00, 35%

On bills from \$200.00 to \$250.00, 40%

On bills from \$250.00 to \$300.00, 45%

On bills from \$300.00 and over, 50%

Street lighting

120 magnetite arcs; rate, \$48.00 per arc per annum

80 series mazdas; rate, \$8.25 per lamp per annum

Moonlight burning schedule

BARNESVILLE (1,353)

Municipal Plant

Method of generation, steam

Number of consumers, 170

Daily operating period, all night and two forenoons a week for heating devices

Commercial lighting and power—

Meter rates:

Minimum monthly bill, 75 cts.; meter rental, 25 cts.

First 57 kw-hrs., 11 cts. per kw-hr.

Next 100 kw-hrs., 10 cts. per kw-hr.

Next 200 kw-hrs., 9 cts. per kw-hr.

Next 300 kw-hrs., 8 cts. per kw-hr.

All over 657 kw-hrs., 7 cts. per kw-hr.

Street lighting—

140 lamps, about half and half 60-watt and 40-watt mazdas.

City pays \$2,800.00 per annum

BAUDETTE (897)

Municipal Plant

Method of generation, steam

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00 per month

First 50 kw-hrs., 12 cts. per kw-hr.

Next 50 kw-hrs., 10 cts. per kw-hr.

Discount of 25% on all accounts paid before the 10th of the month

Street lighting—

53 100-watt mazdas

City pays 7 cts. per kw-hr.

Burning schedule, sunset till sunrise

BELLE PLAINE (1,204)

Northern Power Company

Method of generation, steam

Number of consumers, 150

Daily operating period, from sunset to 1:00 a.m. and from 5:30 a.m. till sunrise

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

10 cts. per kw-hr.

Commercial power—

10 cts. per kw-hr. for the first 30 kw-hrs.

7 cts. for all in excess

Street lighting—

10 arc lights

22 100-c.p. tungstens. City pays \$94.00 a month

Burning schedule, sunset to 1:00 a.m. every night

BEMIDJI (5,000)

Warfield Electric Company

Method of generation, water power and steam

Number of consumers, 600

Daily operating period, continuous

Commercial lighting—

Meter rates:

25 kw-hrs. and under, 10 cts. per kw-hr.

100 kw-hrs. and under, 9 cts. per kw-hr.

200 kw-hrs. and under, 8 cts. per kw-hr.

300 kw-hrs. and under, 7 cts. per kw-hr.

500 kw-hrs. and under, 6 cts. per kw-hr.

Above 500 kw-hrs., 5 cts. per kw-hr.

Discount 10% if paid within 10 days

Flat rates:

16-c.p. lamp, 50 cts.; if burning all night, \$1.00

Commercial power—

Meter rates:

\$1.00 per h.p., service charge

3½ cts. per kw-hr., energy charge

Discount the same as above

Street lighting

126 32-c.p. street lights cost \$1.25 each per month

44 arc lights cost \$7.50 each per month

11 arches across streets cost \$7.50 each per month

10% discount allowed

Burning schedule, continuous

BENSON (1,677)

Municipal Plant

Method of generation, steam

Total yearly generation, 246,636 kw-hrs.

Number of consumers, 285

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 65 cts.

10 cts. per kw-hr.

Commercial power—

Meter rates:

Same minimum as above

8 cts. per kw-hr.

Street lighting

55 60-watt lamps. Rate, 10 cts. per kw-hr.

Burning schedule, 6:00 p.m. till 1:00 a.m.

BIWABIK (1,690)

Municipal Plant

Method of generation, steam. City owns the generator, switch-board, and lines. A mining company supplies steam and labor under contract at 5 cts. per kw-hr.

Number of consumers, about 400

Daily operating period, dusk till daylight

Commercial lighting and power

Meter rates:

No minimum charge

1 to 20 kw-hrs., 12 cts. per kw-hr.

20 to 60 kw-hrs., 11 cts. per kw-hr.

60 to 100 kw-hrs., 10 cts. per kw-hr.

100 to 200 kw-hrs., 9 cts. per kw-hr.

More than 200 kw-hrs., 8 cts. per kw-hr.

Street lighting—

35 General Electric luminous magnetic arcs

No charge

Burning schedule, dusk till 6:00 a.m.

BLUE EARTH (2,319)

Municipal Plant

Method of generation, steam

Number of consumers, 350

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 75 cts.

10 cts. per kw-hr.

Commercial power—

Meter rates:

Minimum monthly bill (apparently same as for lighting).

“from 10 cts. down to 7 cts.”

Street lighting—

92 goosenecks, \$11.50 per annum per light

18 cluster lights

Burning on a moonlight schedule

BRAINERD (8,526)

Municipal Distributing Plant

Current purchased from Cuyuna Range Power Company, generated by hydraulic power. Total purchased, 694,076 kw-hrs. during 1913

Number of consumers, 1,327

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 75 cts. per month

6½ cts. per kw-hr.

No discounts

Commercial power—

Meter rates:

First 500 kw-hrs., 6 cts. per kw-hr.

Next 500 kw-hrs., 5 cts. per kw-hr.

Over 1,000 kw-hrs., 4 cts. per kw-hr.

Street lighting—

86 Westinghouse 4-ampere type B flaming arcs. City pays 3½ cts. per kw-hr.

Burning on a moonlight schedule

BRECKENRIDGE (1,840)

Municipal Plant

Current purchased from Otter Tail Power Company. Yearly amount purchased, 207,325 kw-hrs.

Number of consumers, 450

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 75 cts.; meter rental, 25 cts. per month

9 cts. per kw-hr.

Flat rates:

90 cts. per month for each 16-c.p. light used. (This rate applies only to a few hall lights in public buildings)

Commercial power—

6 cts. per kw-hr.

Heating rates—

3 cts. per kw-hr.

Street lighting—

24 5-light ornamental standards

30 arc lamps. City pays 9 cts. per kw-hr.

Burning schedule, all night for part of the lamps

BROWNTON (509)

Municipal Plant

Method of generation, gasoline engine

Number of consumers, 60

Daily operating period, continuous •

Commercial lighting—

Meter rates:

Minimum bill, 50 cts. and 25 cts. for meter rental

12½ cts. per kw-hr.

Flat rates:

For halls and bank, 75 cts. per month (evidently per light)

Street lighting—

25 mazda lamps burning till 11:00 o'clock

BUFFALO (1,227)

Municipal Plant

Method of generation, producer gas engine

Number of consumers, 215

Daily operating period, from about 4:30 p.m. till about 8:00 a.m.; Saturdays until midnight; Wednesdays it continues till 12:00 m.

Commercial lighting—

Meter rates:

10 cts. per kw-hr. for consumers in the corporate limits

15 cts. per kw-hr. for consumers outside the limits; this rate applies to about 6 consumers

Street lighting

14 arc lights

30 60-watt incandescents

Burning on a moonlight schedule

BUIL (1,005)

Municipal Plant

Method of generation, steam

Estimate of yearly current generated, 30,000 kw-hrs.

Number of consumers, 170

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

8 cts. per kw-hr.

10% discount if bills are paid by the 10th

Street lighting

25 5-light ornamental posts, each with 4 60-watt and 1 100-watt tungstens

17 4-ampere metallic flame arc lights. City pays \$116.50 a month for the arc lights

"White Way is new and rates have not yet been fixed"

Burning schedule, dusk to daylight, except the 4 bottom lights on the ornamental posts which are turned off at midnight

CALEDONIA (1,372)

Municipal Plant

Method of generation, steam

Number of consumers, 290

Daily operating period, all night

Commercial lighting

10 cts. per kw-hr.

Street lighting—

72 100- and 60-watt lamps

Burning on moonlight schedule

CAMBRIDGE (900)

Cambridge Milling Company

Method of generation, steam

Number of consumers, 225

Daily operating period, continuous except Sunday

Commercial lighting and power—

Meter rates:

First 20 kw-hrs., 10 cts. per kw-hr.

Next 10 kw-hrs., 9 cts. per kw-hr.

Next 10 kw-hrs., 8 cts. per kw-hr.

All over 40 kw-hrs., 7 cts. per kw-hr.

Flat rates:

\$1.00 per month for 4 lights

\$1.25 per month for 6 lights; there are several consumers with 7 or 8 lights paying \$1.25 and one with 13 lights paying \$1.75; an attempt is being made to eliminate all flat rates

Street lighting—

19 60-watt incandescents

3 500-c.p. arcs

City pays \$49.75 a month; the company also sells current to the city for pumping water, for which it receives a flat rate of \$25.00 a month

CANBY (1,528)

Citizens Light, Heat and Power Company

Method of generation, steam

Number of consumers, 318

Daily operating period, continuous, with exception of 8 hours on Sundays

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00 per month

First 40 kw-hrs., 15 cts. per kw-hr.

Next 60 kw-hrs., 12 cts. per kw-hr.

Next 200 kw-hrs., 11 cts. per kw-hr.

All over 300 kw-hrs., 10 cts. per kw-hr.

Flat rates:

1 40-watt lamp, per month, 50 cts.

1 25-watt lamp, per month, 25 cts.

Discount, 5% if paid within 10 days

Commercial power

Meter rates:

1 h.p. to less than 2 h.p., 10 cts. per kw-hr.

2 h.p. to less than 5 h.p., 9 cts. per kw-hr.

5 h.p. to less than 10 h.p., 8 cts. per kw-hr.

10 h.p. to less than 15 h.p., 7 cts. per kw-hr.

15 h.p. to less than 25 h.p., 6 cts. per kw-hr.

25 h.p. and all over, 5 cts. per kw-hr.

Above prices are for first 30 kw-hrs. per month per h.p. installed, all current used over that at 4 cts. per kw-hr.; the city pays 6 cts. for first 200 kw-hrs., balance at 4 cts. per kw-hr.

Street lighting —

82 single 100-watt lamps; 12 ornamental standards with 5 lights, 140 watts to the post; rate, \$28.00 per annum per 100-watt lamp

Burning schedule, dusk to midnight

CANNON FALLS (1,385)

Consumers Power Company

Method of generation, water power with steam auxiliary

Daily operating period, continuous

Commercial lighting and power—

LIGHTING RATES (METER RATES)

Kw-hrs.		Schedule A	Schedule B	Schedule C
		Cts. per Kw-hr.	Cts. per Kw-hr.	Cts. per Kw-hr.
First	100.....	10.0	9.0	8.0
Next	100.....	9.0	7.0	6.0
Next	300.....	7.0	6.0	5.0
Next	500.....	6.0	5.0	4.5
Next	1,000.....	5.0	4.0	4.0
Next	1,000.....	4.0	3.5	3.5

LIGHTING RATES (METER RATES)—*Continued*

Kw-hrs.	Schedule A Cts. per Kw-hr.	Schedule B Cts. per Kw-hr.	Schedule C Cts. per Kw-hr.
Next 1,000.....	3.5	3.4	3.4
Next 1,000.....	3.4	3.3	3.3
Next 1,000.....	3.3	3.2	3.2
Next 1,000.....	3.2	3.1	3.1
Next 1,000.....	3.1	3.0	3.0
Next 1,000.....	3.0	2.9	2.9
Next 1,000.....	2.9	2.8	2.8

Above rate also applies to power installations of less than 1 h.p.

POWER RATES (METER RATES)

Kw-hrs.	Schedule D Cts. per Kw-hr.	Schedule E Cts. per Kw-hr.
First 100.....	5.5	4.5
Next 400.....	5.0	4.0
Next 500.....	4.0	3.5
Next 1,000.....	3.5	3.2
Next 3,000.....	3.4	3.1
Next 5,000.....	3.3	3.0
Next 5,000.....	3.2	2.9
Next 10,000.....	3.1	2.8
Next 10,000.....	3.0	2.7
Next 15,000.....	2.9	2.6

The above rate applies to installations of 1 h.p. and over.

Schedule A applies to residence consumers and consumers whose use of capacity installed is less than 3 kw-hrs. per 50-watt lamp or equivalent thereof per month.

Schedule B does not apply to residence lighting but applies to consumers whose use of the capacity installed is 3 kw-hrs. and less than 5 kw-hrs. per 50-watt lamp or equivalent thereof per month.

Schedule C does not apply to residence lighting but applies to consumers whose use of the capacity installed is 5 kw-hrs. and over per 50-watt lamp or equivalent per month.

Schedule D applies to consumers whose use of the capacity installed is less than 25 kw-hrs. per month per horse power.

Schedule E applies to consumers whose use of the capacity installed is 25 kw-hrs. or more per month per horse power.

The above lighting and power rates are subject to a discount of 10% if bills are paid at the office of the company on or before 10 days from the date of rendering thereof. If not paid on or before 10 days from the date of rendering of bills, no discount will be allowed, and the service will be discontinued without further notice on or after 15 days from the rendering of the bill at the option of the company.

A minimum monthly service charge of \$1.00 net will be made for each meter installed, to lighting consumers and for each horse power connected to power consumers.

A reconnection charge of \$1.00 net will be made for each and every meter reset when meter is taken out by reason of consumer becoming delinquent.

Street lighting

80 60-watt tungstens. City pays \$10.00 per lamp per annum
Burning till midnight, except when moonlight

CARLTON (597)

Cloquet Electric Company

Current purchased from Cloquet

Daily operating period, continuous

(Commercial rates omitted from report)

Street lighting

26 lights. City pays \$35.00 per month on the average

CASS LAKE (2,011)

Cass Water, Light and Power Company

Method of generation, steam

Number of consumers, 250

Daily operating period, twilight till dawn

Commercial lighting

Meter rates:

10 to 20 kw-hrs., 15 cts. per kw-hr.

20 to 50 kw-hrs., 14 cts. per kw-hr.

50 to 100 kw-hrs., 13 cts. per kw-hr.

100 to 150 kw-hrs., 12 cts. per kw-hr.

150 to 200 kw-hrs., 10 cts. per kw-hr.

Flat rates:

50 cts. per 40-watt lamp

Street lighting

26 cluster lights, 3 60 watt mazdas in each cluster. City pays
\$5.00 per month each

Burning on a moonlight schedule

CHASKA (2,050)

Municipal Plant

Method of generation, steam

Yearly generation, 60,000 kw-hrs.

Number of consumers, 150

Daily operating period, continuous

Commercial lighting

Meter rates:

Minimum monthly bill, 75 cts.

11 cts. per kw-hr.

Commercial power

Meter rates:

9 cts. per kw-hr. up to 300 kw-hrs.

For all current above 300 kw-hrs., $\frac{1}{2}$ ct. less is charged for
every 300 kw-hrs.

Street lighting

34 100-watt tungsten lamps; plant is credited \$17.50 per lamp
per year

Burning on a 12:00 o'clock moonlight schedule

CHATFIELD (1,228)

Chatfield Electric Light and Power Company

Method of generation, water power with steam auxiliary

Number of consumers, 203

Daily operating period, darkness until midnight, 5:00 a.m. till
daylight

Commercial lighting—

Meter rates:

13 cts. per kw-hr.

Flat rates:

50 cts. per 16-c.p. lamp per month

Street lighting—

3 arc lights

63 60-watt tungstens. City pays \$100.00 a month

CHISHOLM (7,684)

Range Power Company

Method of generation, current purchased, auxiliary steam plant

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

Minimum monthly bill: A meter rental of 50 cts. per month is allowed by franchise, this to be the minimum bill, in case where energy charge would be less than 50 cts. For power rates, a minimum of 50 cts. per h.p. is charged, up to 10 h.p. Above this, special rates will be made.

Up to 20 kw-hrs., 11 cts. per kw-hr.

20 kw-hrs. to 60 kw-hrs., $10\frac{1}{2}$ cts. per kw-hr.60 kw-hrs. to 100 kw-hrs., $8\frac{1}{2}$ cts. per kw-hr.100 kw-hrs. to 200 kw-hrs., $7\frac{1}{2}$ cts. per kw-hr.200 kw-hrs. to 500 kw-hrs., $6\frac{1}{2}$ cts. per kw-hr.

Above 500 kw-hrs., special rates lower than the above quoted

Discount of 1 ct. per kw-hr. allowed if bills are paid by 10th of following month

Street lighting—

Burning schedule, all night and every night

50 4-ampere magnetite constant current luminous arcs; rate, \$10.00 per arc per month

34 ornamental posts, cluster lighting. Rate same as the lowest commercial lighting charge for energy. Village gets same discount as private consumers by paying bill within 30 days.

The company is required to furnish the city for lighting of public buildings, an aggregate of 750 kw-hrs. per month free of charge. All current in excess of this amount the city will pay for at the lowest commercial rates.

CLARKFIELD (603)

Clarkfield Roller Mills and Electric Light Company

Method of generation, gas and oil engines

Yearly current generated, 253,250 kw-hrs.

Number of consumers, 67

Daily operating period, 6:00 a.m. until 11:00 p.m.

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

15 cts. per kw-hr.

Commercial power—

Meter rates:

Minimum same as for lighting

8 cts. per kw-hr.

11 cts. charged for lighting and power together

Street lighting—

30 tungsten lamps. Rate, \$26.00 a month

Burning schedule, moonlight

CLOQUET (7,031)

Cloquet Electric Company

Method of generation, steam

Number of consumers, 700

Daily operating period, continuous

Total yearly current, 1,250,000 kw-hrs.

Commercial lighting—

Meter rates:

1 to 65 kw-hrs., 12 cts. per kw-hr.

65 to 180 kw-hrs., 10 cts. per kw-hr.

180 kw-hrs. and above, 8 cts. per kw-hr.

10% discount on bill if paid by 10th of following month

Commercial power

Meter rates:

2 cts. per kw-hr.

Discount, same as above

Street lighting

68 6.6-ampere enclosed arcs. Rate, \$80.00 per annum per arc

13 32-c.p. incandescents. Rate, \$15.00 per annum per lamp

Burning all night

COLD SPRING (594)

St. Cloud Water Power Company

Method of generation, water power

Number of consumers, 50

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

First 100 kw-hrs., 11 cts. per kw-hr.

Next 100 kw-hrs., 10 cts. per kw-hr.

Next 100 kw-hrs., 9 cts. per kw-hr.

Next 100 kw-hrs., 8 cts. per kw-hr.

Over 400 kw-hrs., 7 cts. per kw-hr.

Discount, 1 ct. per kw-hr. if bill is paid in 10 days

Commercial power—

Meter rates:

Report reads: "Everyone pays 7 cts. per kw-hr. except the brewery, which gets current for 4 cts. per kw-hr."

Street lighting

18 100-watt lights. Rate, \$24.00 per annum per lamp

4 150-watt lights. Rate, \$30.00 per annum per lamp

6 250-watt lights. Rate, \$36.00 per annum per lamp

Burning schedule, 5:00 p.m. till 6:00 a.m.

COLERAINE (1,613)

Western Mesaba Electric Company

Method of generation, steam

Number of consumers, 150

Daily operating period, sunset to sunrise

Commercial lighting

Meter rates:

0 to 200 kw-hrs., 12 cts. per kw-hr.

200 to 500 kw-hrs., 10 cts. per kw-hr.

500 and more kw-hrs., 8 cts. per kw-hr.

Street lighting

21 6.6-ampere arcs. Rate, \$96.00 per annum per arc

30 ornamental posts, 5 lights each

9 100-watt lights. For the latter two, the city pays commercial rates

Burning schedule, darkness to daylight

CROOKSTON (7,554)

Crookston Water Works, Power and Light Company

Method of generation, steam and water power

Yearly current generated, 2,000,000 kw-hrs.

Number of consumers, 1,200

Daily operating period, continuous

Commercial lighting—

Straight meter rates:

Minimum monthly bill, 25 cts. for residences and \$1.00 for stores, offices, etc.

20 cts. per kw-hr.

25% discount if paid before the 10th of the month

"Readiness-to-serve" rate (for stores, saloons, etc.)

\$1.00 consumer charge per month

\$3.00 per month for each kilowatt (or fraction thereof) of demand

5 cts. per kw-hr. for all current consumed

Commercial power

Meter rates:

Minimum monthly charge, \$2.00 per h.p. up to 5 h.p. and
\$1.00 per h.p. for all over 5 h.p.

5 cts. per kw-hr. for motors up to 5 h.p.

4 cts. per kw-hr. for motors from 5 to 10 h.p.

3½ cts. per kw-hr. for motors from 10 to 15 h.p.

3 cts. per kw-hr. for motors from 15 to 25 h.p.

Special rates for over 25 h.p. The flour mill gets its current for 1 ct., using 200 h.p., 24 hours a day the whole year round

Street lighting

122 arcs. City pays \$91.25 and \$76.65 per lamp per annum

Burning schedule, all night.

DASSEL (643)

Power Distribution Company

Method of generation, steam

Number of consumers, 85

Daily operating period, 5:00 a.m. to 1:00 a.m.

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

13 cts. per kw-hr.

Commercial power—

Meter rates:

7½ cts. per kw-hr.

Street lighting—

16 100-watt tungstens. City pays \$2.00 per light per month

3 500-watt tungstens. City pays \$5.00 per light per month

Burning on a moonlight schedule, till 12:30 a.m.

DEER RIVER (900)

Everton Electric Light and Power Company

Method of generation, steam

Number of consumers, 100

Daily operating period, 1:00 p.m. to 7:00 a.m.

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.25

11 cts. per kw-hr.

Flat rates:

25 cts. per light per month

Street lighting—

13 arc lights. Rate, \$9.00 per month per arc

Moonlight burning schedule

DEERWOOD (586)

Cuyuna Range Power Company

Method of generation, water power and steam

Number of consumers, 118

Daily operating period, continuous

Commercial lighting—

Meter rates:

Meter rental of 25 cts. monthly on all bills of less than \$3.00

Minimum charge of 75 cts. for current, in addition to meter rental

First 50 kw-hrs., 12 cts. per kw-hr.

Next 100 kw-hrs., 10 cts. per kw-hr.

Over 150 kw-hrs., 8 cts. per kw-hr.

10% discount if paid on or before the 15th of the month

Commercial power—

Meter rates:

Minimum monthly bill, \$1.00 per h.p. connected load

First 200 kw-hrs., 5 ct. per kw-hr.

Over 200 kw-hrs., 4 cts. per kw-hr.

10% discount if paid on or before the 15th of the month

Street lighting—

40 series mazdas, burning on moonlight schedule till midnight.

City pays 8 cts., company maintaining lamps

DETROIT (1,031)

Municipal Plant

Method of generation, steam

Number of consumers, 175

Daily operating period, 10 hours

Commercial lighting

12 cts. per kw-hr.

No power rates

Street lighting

Data not given

DETROIT (2,807)

Municipal Plant

Method of generation, steam. Yearly generation, 191,082 kw-hrs.

Number of consumers, 458

Daily operating period, continuous

Commercial lighting

Meter rates:

Minimum monthly bill, \$1.25

First 200 kw-hrs., 9 cts. per kw-hr.

Next 100 kw-hrs., 8 cts. per kw-hr.

Next 100 kw-hrs., 7 cts. per kw-hr.

Over 400 kw-hrs., 5 cts. per kw-hr.

Flat rates:

1 16-c.p. lamp or its equivalent to 12 o'clock, 75 cts. per month; all night, \$1.50; 24 hours, \$3.00

10% added if bill is not paid by 10th of month following.

Commercial power

Meter rates:

Minimum monthly bill, \$1.00 per h.p. of installation or fraction thereof

First 52 kw-hrs., $7\frac{1}{2}$ cts. per kw-hr.

All above 52 kw-hrs., $2\frac{1}{2}$ cts. per kw-hr.

Same penalty as above

Street lighting—

8 series 6.6-ampere arcs

65 ornamental posts, 5 lights each

125 80-watt incandescents. City pays regular commercial rates; lights burn all night, excepting posts in which four lights are turned out at 11:00 p.m.

DULUTH (78,466)

Duluth Edison Electric Company

Current purchased from Great Northern Power Company, total of 13,000,000 kw-hrs. per annum

Number of consumers, 16,800

Daily operating period, continuous

Commercial lighting—

Meter rates:

No minimum charge

1 to 200 kw-hrs., 8 cts. per kw-hr. net

200 to 300 kw-hrs., 7.2 cts. per kw-hr. net

300 to 500 kw-hrs., 5.2 cts. per kw-hr. net

Over 500 kw-hrs., 4.8 cts. per kw-hr. net

Commercial power—

Meter rates:

1 h.p. or less, 6 cts. per kw-hr., min. charge, \$2.50

1 h.p. to 5 h.p., 5 cts. per kw-hr., min. charge, \$5.00

5 h.p. to 15 h.p., 4 cts. per kw. hr., min. charge, \$1.00 per h.p.

Over 15 h.p., 3 cts. per kw-hr., min. charge, \$1.00 per h.p.

Less 20% discount

Street lighting—

579 6.6-ampere G. E. open arcs. Rate, \$49.00 per arc per annum

588 bunched incandescents. Rate, 3 bunches pay the same as 1 arc, \$49.00 per annum

Burning schedule, all night and every night

EAST GRAND FORKS (2,533)

Municipal Plant

Method of generation, current purchased

Yearly current purchased, 345,632 kw-hrs. (1913)

Number of consumers, 321

Daily operating period, continuous

Commercial lighting

Meter rates:

Minimum monthly bill, \$1.00

8 cts. per kw-hr.

10% discount on bills of \$20.00 and over

20% discount on bills of \$50.00 and over

Commercial power

Meter rates:

Same minimum as above

6 cts. per kw-hr. net

Street lighting—

243 mazdas. City pays 5 cts. per kw-hr.

Burning schedule, part of system all night, part on a moon-light schedule

ELBOW LAKE (776)

Municipal Plant

Method of generation, steam

Number of consumers, 125

Daily operating period, from 5:00 p.m. till midnight and from 5:30 to 8:00 a.m. in winter; and about 4 hours in the summer

Commercial lighting

Meter rates:

12½ cts. per kw-hr.

Flat rates:

For 1 lamp, 75 cts.

For 2 lamps, \$1.25

For 3 lamps, \$1.65

For more than 3 lamps, a meter must be installed

Street lighting—

4 arcs

26 incandescents

No charge to municipality

Burning schedule is probably the same as the operating period

ELLSWORTH (536)

Municipal Plant

Method of generation, 50 h.p. oil engine

Number of consumers, 100

Daily operating period, continuous; engine runs 9 to 10 hours,
and the balance of the time storage batteries provide current

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

15 cts. per kw-hr.

5% discount if paid before the 5th of following month

Commercial power—

Meter rates:

Minimum monthly bill, \$2.00

10 cts. per kw-hr.

Discount same as above

Street lighting—

26 bracket lights, 100-watt incandescent

4 suspension lights, 250-watt incandescent

City charged \$75.00 a month

Operations commenced about Dec. 1, 1913

EVELETH (7,036)

Home Electric and Heating Company

Method of generation, steam

Yearly generation, 635,766 kw-hrs.

Number of consumers, 955

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

1 to 50 kw-hrs., 12 cts. per kw-hr.

50 to 100 kw-hrs., 10 cts. per kw-hr.

100 to 300 kw-hrs., 8 cts. per kw-hr.

300 to 500 kw-hrs., 7.2 cts. per kw-hr.

500 to 1,000 kw-hrs., 6 $\frac{3}{4}$ cts. per kw-hr.

1,000 and more kw-hrs., 6 cts. per kw-hr.

Discount of 10% if bills are paid by the 25th of the month

Commercial power—

Meter rates:

Minimum monthly bill, \$1.50 per h.p.

1 to 200 kw-hrs., 8 cts. per kw-hr.

200 to 500 kw-hrs., 7 cts. per kw-hr.

500 to 1,000 kw-hrs., 6 cts. per kw-hr.

1,000 kw-hrs. and more, 5 cts. per kw-hr.

Discount, same as above

Street lighting

70 500-watt mazdas. City pays \$120.00 for the first 40, \$96.00 for all over 40

Burning schedule, all night

EXCELSIOR (1,015)

Northern Power Company

Current purchased from the Minneapolis General Electric Company

Number of consumers, 115 (February 1, 1914); about 300 in the summer

Daily operating period, continuous

Commercial lighting

Meter rates:

Minimum monthly bill, \$1.00

For service for more than 8 months a year:

15 cts. per kw-hr. for the first 30 kw-hrs. per month

8 cts. per kw-hr. for all over that

For service from 6 to 8 months a year:

16 cts. per kw-hr. for the first 30 kw-hrs. per month

10 cts. per kw-hr. for all over that

For service from 4 to 6 months a year:

18 cts. per kw-hr. for the first 30 kw-hrs. per month

12 cts. per kw-hr. for all over that

For service for less than 4 months a year:

20 cts. per kw-hr. for the first 30 kw-hrs. per month

14 cts. per kw-hr. for all over that

Commercial power—

Meter rates:

Minimum monthly bill, \$2.50 per h.p.

10 cts. per kw-hr. for the first 40 kw-hrs.

7 cts. per kw-hr. for all over that

Street lighting—

25 arc lights. City pays \$140.83 per month.

Burning schedule, from darkness till 1:00 a.m.

FAIRFAX (815)

Municipal Distributing System

Power furnished by Crescent Milling Company

Method of generation, steam and gasoline

Number of consumers, 154

Daily operating period, continuous

Commercial lighting—

Meter rates:

15 cts. per kw-hr.

Commercial power—

Meter rates:

12 cts. per kw-hr.

Street lighting—

60 mazda lamps burning on a moonlight schedule. Rate,
\$80.00 per month

FAIRMONT (2,958)

Municipal Plant

Method of generation, producer gas

Yearly current generated, about 650,000 kw-hrs.

Number of consumers, 600

Daily operating period, continuous

Commercial lighting

Meter rates:

12 cts. per kw-hr.; expect to cut in a few months to 10 cts
per kw-hr.

Commercial power

Meter rates:

Minimum monthly bill, \$1.00 per h.p.

8 cts. per kw-hr. down to 4 cts. per kw-hr.

Street lighting—

94 lights, part arcs and part incandescents. City pays \$72.00
per annum for each arc, and \$18.00 per annum for each
incandescent

Burning all night

FARIBAULT (9,001)

Consumers Power Company

Method of generation, combined hydraulic and steam

Yearly total of about 1,000,000 kw-hrs.

Number of consumers, 1,200

Daily operating period, continuous

Commercial lighting and power—

A minimum monthly service charge of \$1.00 net will be made
for each meter installed, to lighting consumers, and for each
horse power connected to power consumers.

A reconnecting charge of \$1.00 net will be made for each and
every meter reset when meter is taken out by reason of con-
sumer becoming delinquent.

LIGHTING RATES (METER RATES)

Kw-hrs.		Schedule A Cts. per Kw-hr.	Schedule B Cts. per Kw-hr.	Schedule C Cts. per Kw-hr.
First	100.....	10.0	9.0	8.0
Next	100.....	9.0	7.0	6.0
Next	300.....	7.0	6.0	5.0
Next	500.....	6.0	5.0	4.5
Next	1,000.....	5.0	4.0	4.0
Next	1,000.....	4.0	3.5	3.5
Next	1,000.....	3.5	3.4	3.4
Next	1,000.....	3.4	3.3	3.3
Next	1,000.....	3.3	3.2	3.2
Next	1,000.....	3.2	3.1	3.1
Next	1,000.....	3.1	3.0	3.0
Next	1,000.....	3.0	2.9	2.9
Next	1,000.....	2.9	2.8	2.8

Above rate also applies to power installations of less than one horse power.

POWER RATES (METER RATES)

Kw-hrs.		Schedule D Cts. per Kw-hr.	Schedule E Cts. per Kw-hr.
First	100.....	5.5	4.5
Next	400.....	5.0	4.0
Next	500.....	4.0	3.5
Next	1,000.....	3.5	3.2
Next	3,000.....	3.4	3.1
Next	5,000.....	3.3	3.0
Next	5,000.....	3.2	2.9
Next	10,000.....	3.1	2.8
Next	10,000.....	3.0	2.7
Next	15,000.....	2.9	2.6

Above rate applies to installations of one horse power and over.

Schedule A applies to residence consumers and consumers whose use of capacity installed is less than 3 kw-hrs. per 50-watt lamp or equivalent thereof per month.

Schedule B does not apply to residence lighting but applies to consumers whose use of the capacity installed is 3 kw-hrs. and less than 5 kw-hrs. per 50-watt lamp or equivalent thereof per month.

Schedule C does not apply to residence lighting but applies to consumers whose use of the capacity installed is 5 kw-hrs. and over per 50-watt lamp or equivalent per month.

Schedule D applies to consumers whose use of the capacity installed is less than 25 kw-hrs. per month per horse power.

Schedule E applies to consumers whose use of the capacity installed is 25 kw-hrs. or more per month per horse power.

The above lighting and power rates are subject to a discount of 10 per cent if bills are paid at the office of the company on or before 10 days from the date of rendering thereof. If not paid on or before 10 days from the date of rendering of bills, no discount will be allowed, and the service will be discontinued without further notice on or after 15 days from the rendering of the bill at the option of the company.

Street lighting—

100 arc lights. Rate, \$65.00 per annum

92 incandescents. Rate, 85 cts. per month

148 curb light posts with 3 incandescents to the post. Rate, \$34.00 per annum per post

Burning schedule:

Incandescents all night

Arcs all night except when moonlight

Curb light posts, all three incandescents till midnight, after midnight one lamp to each post, until dawn

FARMINGTON (1,024)

Farmington Electric Light and Power Company

Method of generation, producer gas engine

Daily operating period, sundown till midnight

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

15 cts. per kw-hr.

Commercial power—

Meter rates:

Same minimum as above

10 cts. per kw-hr.

Street lighting—

32 40-watt lamps

4 arc lights. City pays \$76.60 a month

Burning schedule, probably about the same as the operating period

FERGUS FALLS (6,877)

Municipal Plant

Current purchased from Otter Tail Power Company, Fergus Falls

Total of 483,425 kw-hrs. per annum

Number of consumers, 1,000

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 25 cts.

7½ cts. per kw-hr.

Street lighting—

56 Westinghouse metalics. Rate, 5 cts. per kw-hr.

Burning schedule, all night

FOSTON (1,075)

Municipal Plant

Method of generation, steam

Number of consumers, 200

Daily operating period, continuous

Commercial lighting—

Meter rates:

15 cts. per kw-hr.

Flat rates:

60 cts. per month for 16-c.p. lamp

45 cts. per month for 8-c.p. lamp

Commercial power—

Meter rates:

- 15 cts. per kw-hr. to all consumers except 1
- 7 cts. per kw-hr. is charged for electricity used by 25-h.p. motor

Street lighting—

- 45 32-c.p. incandescents
- 4 arc lamps
- No charge to municipality
- Burning schedule, 6:00 p.m. to 2:00 a.m.

FRAZEE (1,645)

Nichols Chisholm Lumber Company

Method of generation, steam

Daily operating period, continuous

Commercial lighting—

No information given

Street lighting -

126 tungstens. "City pays 75 cts. per light flat rate"

FULDA (743)

Fulda Light and Power Company

Method of generation, steam

Number of consumers, 130

Daily operating period, 18 hours a day

Commercial lighting—

Meter rates:

- Minimum monthly bill, \$1.00
- 15 cts. per kw-hr. net

Flat rate:

- \$1.25 per month for 40-watt lamp

Commercial power—

Meter rates:

- Minimum monthly bill, 50 cts. per h.p.

First	50 kw-hrs.,	8	cts. per kw-hr. net
Next	50 kw-hrs.,	7	cts. per kw-hr. net
Next	50 kw-hrs.,	6	cts. per kw-hr. net
Next	50 kw-hrs.,	5	cts. per kw-hr. net
Next	100 kw-hrs.,	4	cts. per kw-hr. net
Next	200 kw-hrs.,	3	cts. per kw-hr. net
Next	500 kw-hrs.,	2½	cts. per kw-hr. net
Over	1,000 kw-hrs.,	2	cts. per kw-hr. net

Street lighting—

14 arc lamps

20 60-watt mazdas. City pays \$100.00 a month

Burning schedule, from sundown to midnight

GAYLORD (610)

Municipal Plant

Method of generation, steam

Number of consumers, 105

Daily operating period, 6 hours a day

Commercial lighting—

Meter rates:

Minimum monthly bill, 50 cts.

12 cts. per kw-hr.

10% discount for payments on or before the 10th of the following month

Flat rates:

50 cts. per lamp monthly

Street lighting—

8 A. B. arcs and 22 40-watt mazdas

Burning 3½ hours each night

GLENCOE (1,788)

Northwest Light and Power Company

Method of generation, steam. (Generator at Hutchinson with auxiliary plant at Glencoe)

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

Minimum monthly bill, \$1.00 from October 1 to March 31;

90 cts. from April 1 to September 30

12½ cts. per kw-hr., subject to the following discounts if bills are paid before the 10th of the month:

Bills up to \$2.50, net

Bills above \$2.50 to \$5.00 per month, 5% discount

Bills above \$5.00 to \$7.50 per month, 10% discount

Bills above \$7.50 to \$10.00 per month, 15% discount

Bills above \$10.00 per month, 20% discount

Street lighting—

5 500-c.p. arcs. Rate is \$6.00 per arc

94 32-c.p. incandescents. Rate is \$1.25 per lamp

Burning schedule, dusk to daylight

GLENWOOD (2,161)

Glenwood Electric Light, Heat and Power Company

Method of generation, steam

Company has just started

Rates are determined by franchise, as follows:

(The company may make lower rates)

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

First 30 kw-hrs., 12½ cts. per kw-hr.

Next 30 kw-hrs., 11 cts. per kw-hr.

All over 60 kw-hrs., 10 cts. per kw-hr.

Flat rates:

50 cts. per month per 16-c.p. lamp or its equivalent

Meter rental, 15 cts. monthly except in June and July 25 cts.

Discount, 10% if bills are paid within 10 days

Commercial power—

Meter rates:

Minimum monthly bill, \$2.00 per h.p.

"The maximum rate for power per h.p. shall never exceed 9 cts. per kw-hr., and on a sliding scale down to 6 cts. per kw-hr."

Discount same as above

Street lighting—

City to secure current at 10 cts. per kw-hr. with a 10% discount same as above.

GRACEVILLE (987)

Otter Tail Power Company

Method of generation, water power at Fergus Falls

Current used at Graceville, about 75,000 kw-hrs. yearly

Number of consumers, 141

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.11

12 cts. per kw-hr. for first 32 hours' use of active lights

6 cts. per kw-hr. for next 64 hours' use of active lights

3 cts. per kw-hr. for balance, where cooking appliances are used

Discount, 10%; discount applies also to minimum bill

Commercial power—

Meter rates:

Minimum monthly bill, \$1.11 for 1 h.p. installation

\$2.00 for 2 h.p. installation

\$2.25 for 3 h.p. installation

\$2.50 for 5 h.p. installation

50 cts. per h.p. for over 5 h.p. installation

10 cts. per kw-hr. for first 25 hours of maximum demand

5 cts. per kw-hr. for next 50 hours of maximum demand

3 cts. per kw-hr. for balance

All charges, including minimums, subject to 10% discount as in commercial lighting

Street lighting—

5 500-watt mazdas. Rate, \$8.00 per month

- 2 250-watt mazdas. Rate, \$4.00 per month
 - 10 100-watt mazdas. Rate, \$1.60 per month
 - 21 60-watt mazdas. Rate, \$1.20 per month
- Burning schedule, the 500-watt lamps burn all night; others on Philadelphia moonlight schedule

GRAND MEADOW (552)

Southern Minnesota Power Company

Method of generation, steam. (Plant in operation since the beginning of the year)

Number of consumers, 50

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

13 cts. per kw-hr.

Discount 1 ct. per kw-hr. on bill paid within 10 days

Commercial power—

Meter rates:

Minimum monthly bill, "75 cts. for connected load"

7 cts. per kw-hr. "downward" for all motors in excess of 5 h.p.

Street lighting—

12 ornamental 5-light standards

18 center suspended street lights

City pays \$54.00 per month

Burning schedule till midnight

HARRIS (673)

Eastern Minnesota Power Company

Current purchased from Pine City

Number of consumers, 30

Daily operating period, continuous except Sunday from 9:00 a.m. to 3:00 p.m.

Commercial lighting—

Meter rates:

- First 30 kw-hrs., 10 cts. per kw-hr.
- Next 20 kw-hrs., 8 cts. per kw-hr.
- Next 50 kw-hrs., 7 cts. per kw-hr.
- Next 300 kw-hrs., 6 cts. per kw-hr.
- All over 400 kw-hrs., 5 cts. per kw-hr.

Street lighting—

- 6 corner poles; \$2.00 per light per month
- Burning schedule, 5:00 p.m. till 7:00 a.m.

HASTINGS (3,983)

Hastings Electric Light and Water Power Company

Method of generation, part water power, balance purchased

Daily operating period, continuous

Commercial lighting

Meter rate:

- Minimum bill, 50 cts. per month
- 15 cts. per kw-hr. with the following discounts:
- 10% on bills up to \$4.00 per month
- 15% on bills in excess of \$4.00 per month
- 20% on bills in excess of \$7.00 per month
- 25% on bills in excess of \$10.00 per month

Commercial power—

- 7½ cts. per kw-hr.

Street lighting

- 45 500-watt tungstens, for which the city pays \$5.00 per light
- Burning schedule, darkness till 1:00 a.m.

HAWLEY (800)

Municipal Plant

Method of generation, gas engine

Number of consumers, 170

Daily operating period, sunset to 12:30 and from 5:00 a.m. to 8:00 a.m.

Commercial lighting

No report given

Street lighting—

36 100-watt tungstens

Burning on a moonlight schedule

HENNING (603)

Cordes Brothers

Method of generation, gasoline

Commercial lighting—

No report given

Street lighting—

18 100-watt tungstens. City pays \$65.00 per month

Burning schedule, dark till midnight

HINCKLEY (673)

Hinckley Electric Company, Cloquet, Minn.

Current purchased from Sandstone

Number of consumers, 90

Daily operating period, continuous except at noon hour and on
Sundays

Commercial lighting—

Meter rates:

First 30 kw-hrs., 10 cts. per kw-hr.

Next 20 kw-hrs., 8 cts. per kw-hr.

Next 50 kw-hrs., 7 cts. per kw-hr.

Next 300 kw-hrs., 6 cts. per kw-hr.

Over 400 kw-hrs., 5 cts. per kw-hr.

Commercial power—

Meter rates:

Same as lighting rates, for up to 5 h.p.

For over 5 h.p., special rates are made

Street lighting—

8 cluster lights, 3 60-watt mazdas each

16 single 60-watt mazdas. City pays \$7.20 per annum per light

Burning schedule, all night

HOWARD LAKE (626)

Power Distribution Company

Method of generation, steam

Number of consumers, 80

Daily operating period, dusk to midnight and 5:00 a.m. to daylight

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

12 cts. per kw-hr.

Commercial power—

7½ cts. per kw-hr.

The city buys current at 4 cts. per kw-hr. for pumping, amounting to about 300 kw-hrs. a month

Street lighting—

18 100-watt tungstens. City pays \$2.00 per light per month

5 500-watt tungstens. City pays \$5.00 per light per month and the total is computed at \$60.00 per month

HUTCHINSON (2,368)

Hutchinson Lighting and Manufacturing Company

Method of generation, steam

Commercial lighting—

Meter rates:

12½ cts. per kw-hr. with discounts varying with amounts used

INTERNATIONAL FALLS (1,487)

Minnesota and Ontario Power Company

Method of generation, water power

Number of consumers, 1,000

Daily operating period, continuous

Commercial lighting

Meter rates:

- Minimum monthly bill, \$1.25
- First 60 kw-hrs., 10 cts. per kw-hr.
- Next 120 kw-hrs., 9 cts. per kw-hr.
- Next 540 kw-hrs., $7\frac{1}{2}$ cts. per kw-hr.
- Over 720 kw-hrs., 6 cts. per kw-hr.

Commercial power—

Meter rates:

- 6 cts. per kw-hr.

Street lighting—

- 37 inverted luminous arcs. City pays 5 cts. per kw-hr.
- Burning schedule, about 12 hours daily

JACKSON (1,907)

Municipal Plant

Method of generation, steam; water power plant after May 14, 1914

Number of consumers, 319

Daily operating period, continuous

Commercial lighting—

Meter rates:

Meter rental, 25 cts. a month

10 cts. per kw-hr. with discounts as follows:

- On monthly bills over 200 kw-hrs., 10%
- On monthly bills over 300 kw-hrs., 20%
- On monthly bills over 400 kw-hrs., 30%
- On monthly bills over 550 kw-hrs., 35%
- On monthly bills over 750 kw-hrs., 40%
- On monthly bills over 1,750 kw-hrs., 45%
- On monthly bills over 3,750 kw-hrs., 50%

Flat rates:

Arc lights burning till 10:00 p. m., \$5.00 a month each

Commercial power—

Meter rates:

Minimum monthly bill, \$1.00 per h.p.

Meter rental same as above

10 cts. per kw-hr. with discounts as follows on monthly bills:

From \$4.00 to \$5.99, 10%

From \$6.00 to \$7.99, 15%

From \$8.00 to \$9.99, 20%

From \$10.00 to \$14.99, 25%

From \$15.00 to \$19.99, 30%

From \$20.00 to \$29.99, 35%

From \$30.00 to \$39.99, 40%

From \$40.00 to \$49.99, 45%

From \$50.00 or over, 50%

Street lighting—

13 arcs. Rate, \$5.00 a month for each arc

76 pole lights. Rate, \$1.00 a month for each light

Burning schedule, from a half hour after sundown till 11:30 p.m.

JANESVILLE (1,173)

Consumers Power Company

Method of generation, water power and steam

Number of consumers, 205

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

10 cts. per kw-hr.

10% discount for prompt payment

Commercial power—

Meter rates:

Minimum monthly bill, \$1.00 per h.p. installation

5 cts. per kw-hr.

10% discount for prompt payment

Street lighting—

76 incandescents. Rate, \$16.50 per annum per lamp

Burn from dusk till midnight

JORDAN (1,151)

Jordan Electric Light and Heating Company

Method of generation, steam

Yearly product, 68,035 kw-hrs.

Number of consumers, 152

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

12½ cts. per kw-hr., maximum charge

Discounts as follows:

On bills of \$5.00, 5%

On bills of \$6.00, 6%

On bills of \$7.00, 7%. The same progression of discounts continuing up to 20% for bills of \$20.00 and all over that get 20% discount

Flat rates:

Allowed only on one light, 65 cts. per month

Commercial power—

Meter rates:

If 75 kw-hrs. or less are used per kw. connected, the rate is 12½ cts. per kw-hr.

For 76 to 90 kw-hrs., per kw. connected, the rate is 11 cts. per kw-hr.

For 91 to 150 kw-hrs., per kw. connected, the rate is 10 cts. per kw-hr.

For more than 150 kw-hrs., per kw. connected, the rate is 9 cts. per kw-hr.

Discounts as follows:

Bills of \$5.00 or over, 5%

Bills of \$6.00 or over, 6%, and so on, the same as in the lighting discounts

Street lighting—

15 enclosed arcs

14 100-watt mazda lamps. City pays \$95.00 a month

Burning schedule, moonlight till 1:00 a.m.

KASOTA (700)

St. Peter Municipal Plant

Method of generation, steam. Current from St. Peter

Number of consumers, 65

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

Meter rent, 10 cts. per month

13 cts. per kw-hr.

Discount 10%, if bill is paid before 10th of following month

Commercial power—

Meter rates:

The Consumers Power Company sells power on special contracts to two stone mills and one elevator. Current from Rapidan

Street lighting--

50 60-watt mazdas. City pays 7 cts. per kw-hr.

KASSON (932)

Municipal Plant

Method of generation, steam

Yearly current generated, 40,000 kw-hrs.

Number of consumers, 200

Daily operating period, "shut down at midnight in summer and run all night from about October 1 to April 1"

Commercial lighting—

Meter rates:

Minimum monthly bill, 50 cts; meter rental, 20 cts.

10 cts. per kw-hr.

Street lighting—

3 enclosed arcs. Rate, \$60.00 per annum per arc

2 400-watt tungsten arcs

"The rest are 40-watt tungsten incandescents. Rate, \$7.20 per annum per light"

Lights burn on Philadelphia moonlight schedule, till midnight

KENYON (1,237)

Kenyon Electric Company

Method of generation, steam

Number of consumers, 150

Daily operating period, 18 hours

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

12 cts. per kw-hr.

Flat rates:

50 cts. per lamp per month

Commercial power—

Meter rates:

Minimum monthly bill, \$1.00 per h.p.

5 cts. per kw-hr.

Street lighting—

5 arc lights. Rate, \$6.25 per arc per month

31 40-watt lights. Rate, \$1.00 per light per month

Lights burn till midnight

LAKE CITY (3,142)

Municipal Plant

Method of generation, steam

Yearly generation, 245,000 kw-hrs.

Number of consumers, 416

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

Minimum monthly bill, 75 cts.; meter rental, 5- and 10-ampere capacity, 30 cts.; 15- to 25-ampere capacity, 50 cts.

For light and power up to 1 h.p., 12½ cts. per kw-hr.

For power of 1 h.p. or greater, 10 cts. per kw-hr. (To get this rate a special meter must be installed)

Discounts as follows if paid by 20th of following month:

For lighting rates:

20%, up to 100 kw-hrs.

25%, 100 to 200 kw-hrs.

30%, over 200 kw-hrs.

If current is used for power only, on the day load, the following discounts apply:

35% for from 500 kw-hrs. to 600 kw-hrs.

40% for from 600 kw-hrs. to 700 kw-hrs.

45% for from 700 kw-hrs. to 800 kw-hrs.

50% on all over 800 kw-hrs.

Street lighting—

57 A. B. enclosed arcs. Rate, \$5.00 per arc per month

24 mazdas

Burning on a moonlight schedule; city hall, parks, lock-up, and harbor lights free

LAKE CRYSTAL (1,055)

Consumers Power Company

Method of generation, water power and steam

Daily operating period, continuous

Commercial lighting—

Meter rates:

Monthly minimum bill, \$1.00

10 cts. per kw-hr.

Street lighting—

67 30-c.p. lamps. City pays \$1.00 per month per light

LAKEFIELD (924)

Municipal Plant

Method of generation, steam

Number of consumers, 190

Daily operating period, dusk to midnight

Commercial lighting—

Meter rates:

12½ cts. per kw-hr. for the first 50 kw-hrs.

10 cts. per kw-hr. for all over 50 kw-hrs.

Street lighting

8 arc lights
42 goosenecks

LANESBORO (987)

Municipal Plant

Method of generation, water power

Number of consumers, 180

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

Minimum monthly bill, 50 cts.

8 cts. per kw-hr.

Flat rates:

30 cts. a month per lamp of less than 40 watts

40 cts. a month per lamp of 40 to 60 watts

Street lighting—

85 lights: 16-c.p. and 40-watt tungstens

Burning schedule, about 9 hours

LE SUEUR CENTER (741)

Continental Utilities Company of Delaware

Method of generation, gas engine

Number of consumers, about 100

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

First 10 kw-hrs., 16 cts. per kw-hr.

Over this amount, 12 cts. per kw-hr.

10% discount if paid before the 10th of the month

Commercial power—

Meter rates:

Minimum monthly bill, \$1.50

Up to and including 3 h.p. connected load, a discount of 25% is made from the commercial lighting rate. From 3 h.p. to 6 h.p. connected load, a discount of $33\frac{1}{3}\%$ from the commercial lighting rate

10% discount on entire bill if paid before the 10th of the month

Flat rates:

The city pays \$67.00 a month flat rate for pumping

Street lighting—

18 80-watt tungsten lamps. Rate, \$108.00 a month

Burning schedule, dusk until midnight; 5 lights in the business district burn all night

LINDSTROM (522)

St. Croix Falls Minnesota Improvement Company

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

11 cts. per kw-hr.

Street lighting—

27 lights. \$17.50 per annum per light

Burning schedule, 10 hours

LITCHFIELD (2,333)

Municipal Plant

Method of generation, steam

Yearly generation, 250,000 kw-hrs.

Number of consumers, 500

Daily operating period, continuous except Sunday

Commercial lighting—

Meter rates:

Minimum monthly bill, 60 cts.

11 cts. per kw-hr. for maximum demand for 2 hours per day of connected load

8 cts. per kw-hr. for all over this amount

10% discount if bills are paid within 10 days

Commercial power—

Meter rates:

Installations of under 2 h.p. take lighting rate

On installations of over 2 h.p., rate is 8 cts. per kw-hr. until an amount equal to \$1.00 per h.p. installed per month has been used

7 cts. per kw-hr. for the next equal amount

6 cts. per kw-hr. for the next equal amount

2 cts. per kw-hr. for all current used above \$3.00 per h.p. per month

Street lighting

26 ornamental 5-light posts. Rate, \$30.00 per annum per post

120 80-c.p. street series lamps. Rate, \$15.00 per annum per lamp

Series lamps until midnight

LITTLE FALLS (6,078)

Little Falls Water Power Company

Method of generation, water power

Yearly current generated, 3,427,010 kw-hrs.

Number of consumers, 990

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

5 cts. per kw-hr. net with additional 10 cts. per connected outlet per month

30 cts. per 16-c.p. lamp per month

Commercial power—

Meter rates:

Minimum monthly bill, \$1.00 per h.p. connected load

3 cts. per kw-hr.

Street lighting

90 5-light ornamental standards, 4 40-watt lamps and 1 60-watt lamp each. City pays \$3.50 per month per standard

86 100-watt lamps. City pays \$2.00 per month per lamp

Burning schedule, all night, except the 4 lower lights on the standards, which burn to 1:00 a.m.

LONG PRAIRIE (1,250)

Municipal Plant

Method of generation, steam

Number of consumers, 145

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

First 5 kw-hrs., 16 cts. per kw-hr.

Next 10 kw-hrs., 14 cts. per kw-hr.

Next 30 kw-hrs., 12 cts. per kw-hr.

All over 45 kw-hrs., 10 cts. per kw-hr.

Commercial power

Meter rates:

Minimum monthly bill, \$1.00

First 300 kw-hrs., 10 cts. per kw-hr.

Next 300 kw-hrs., 8 cts. per kw-hr.

Next 200 kw-hrs., 7 cts. per kw-hr.

All over 800 kw-hrs., 6 cts. per kw-hr.

Street lighting

40 4-light clusters, hanging incandescents

22 incandescents

City pays \$96.00 a month

Burning schedule, moonlight

LUVERNE (2,540)

Municipal Plant

Method of generation, steam

Number of consumers, 520

Daily operating period, continuous

Commercial lighting—

Meter rates:

First 20 kw-hrs., 10 cts. per kw-hr.

Second 30 kw-hrs., 8 cts. per kw-hr.

All over 50 kw-hrs., 7 cts. per kw-hr.

Commercial power—

Meter rates:

First 30 kw-hrs., 7 cts. per kw-hr.

Second 30 kw-hrs., 6 cts. per kw-hr.

All over 60 kw-hrs., 5 cts. per kw-hr.

Street lighting—

25 arcs, 6.6-ampere

No charge to municipality

Burning schedule, moonlight and half the night

LYLE (552)

Lyle Electric Light Company

Method of generation, steam

Number of consumers, 200

Daily operating period, dusk till 11:30 p.m.

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.25

15 cts. per kw-hr.

Flat rates:

50 cts. per lamp per month

Street lighting—

13 250-c.p. mazdas

5 60-c.p. mazdas

City pays \$50.00 per month

Lights burn till 11:30 p.m.

McINTOSH (634)

Anton Jensen, Owner of Plant

Method of generation, producer gas engine

Daily operating period, "we do not run between 1:00 and 5:30 a.m."

Commercial lighting—

Meter rates:

15 cts. per kw-hr.

Flat rates:

Report says, "I do not believe I can give you any intelligent information on this, as there are so many types of lamps used, and various uses, some burning longer than others"

Street lighting—

147 lamps in a White Way, 3 lamps to a post. City pays \$1.40 for each post

Burning on a moonlight schedule

MADELIA (1,273)

Madelia Electric Company

Current purchased from Rapidan

Daily operating period, continuous

Commercial lighting—

Meter rates:

10 cts. per kw-hr.

10% discount if paid before 10th of month following

Commercial power—

Meter rates:

Minimum monthly bill, \$1.00 per h.p. installed capacity

5 cts. per kw-hr.

Street lighting—

65 100-watt tungstens. \$24.00 per annum per light

Burning schedule, all night

MADISON (1,811)

Municipal Plant

Method of generation, steam

Yearly generation, 239,266 kw-hrs.

Number of consumers, 400

Daily operating period, continuous

Commercial lighting

Meter rates:

Minimum monthly bill, \$1.00

12½ cts. per kw-hr., primary rate

10 cts. per kw-hr., secondary rate

10% penalty if bill is not paid by 25th of following month

Commercial power—

Meter rates:

Minimum monthly bill, \$1.00 per h.p.

8 cts. per kw-hr.

Street lighting

40 5-light ornamental posts, 4 60-watt and 1 100-watt lamps
to each post. \$50.00 per post per annum

75 5.5-ampere series "Pakard," 8 cts. per kw-hr.

Burning schedule, series lights all night except when bright
moonlight; posts, top light all night, others till 11:00 p.m.

MAHNOMEN (796)

Municipal Plant

Method of generation, steam

Number of consumers, 110

Daily operating period, dusk to daylight from November to
April inclusive, and from dusk to 1:30 a.m. the remainder of
the year

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

Meter rental, 25 cts.

12 cts. per kw-hr.

Flat rates:

Residence lights:

25-watt lamp, 40 cts.

40-watt lamp, 50 cts.

60-watt lamp, 60 cts.

100-watt lamp, 75 cts.

Commercial lights:

25-watt lamp, 60 cts.

40-watt lamp, 75 cts.

60-watt lamp, \$1.12

Street lighting—

30 incandescents, 60- and 100-watt mazdas

City pays \$60.00 a month

Burning schedule, dusk to 1:00 a.m. "and moonlight"

MANKATO (10,365)

Consumers Power Company

Method of generation, steam and hydraulic

Yearly current generated, 2,791,230 kw-hrs., year ending Dec. 31, 1913

Number of consumers, 1,689

Daily operating period, continuous

Commercial light and power—

LIGHTING RATES (METER RATES)

Kw-hrs.	Schedule		
	A	B	C
	Cts. per Kw-hr.	Cts. per Kw-hr.	Cts. per Kw-hr.
First 100.....	10.0	9.0	8.0
Next 100.....	9.0	7.0	6.0
Next 300.....	7.0	6.0	5.0
Next 500.....	6.0	5.0	4.5
Next 1,000.....	5.0	4.0	4.0
Next 1,000.....	4.0	3.5	3.5
Next 1,000.....	3.5	3.4	3.4
Next 1,000.....	3.4	3.3	3.3
Next 1,000.....	3.3	3.2	3.2
Next 1,000.....	3.2	3.1	3.1
Next 1,000.....	3.1	3.0	3.0
Next 1,000.....	3.0	2.9	2.9
Next 1,000.....	2.9	2.8	2.8

Above rate also applies to power installations of less than one horse power.

Schedule A applies to residence consumers and consumers whose use of the capacity installed is less than 3 kw-hrs. per 50-watt lamp or equivalent thereof per month.

Schedule B applies to consumers whose use of the capacity installed is 3 kw-hrs. and less than 5 kw-hrs. per 50-watt lamp or equivalent thereof per month, but does not apply to resident lighting.

Schedule C does not apply to residence lighting but applies to consumers whose use of the capacity installed is 5 kw-hrs. and over per 50-watt lamp or equivalent per month.

Discount, 10% if paid within 10 days

Minimum, \$1.00 per month per meter

POWER RATES (METER RATES)

Minimum charge, \$1.00 per month per horse power installed

Kw-hrs.		Schedule D Cts. per Kw-hr.	Schedule E Cts. per Kw-hr.
First	100.....	5.5	4.5
Next	400.....	5.0	4.0
Next	500.....	4.0	3.5
Next	1,000.....	3.5	3.2
Next	3,000.....	3.4	3.1
Next	5,000.....	3.3	3.0
Next	5,000.....	3.2	2.9
Next	10,000.....	3.1	2.8
Next	10,000.....	3.0	2.7
Next	15,000.....	2.9	2.6

Above rate applies to installations of one horse power and over.

Schedule D applies to consumers whose use of the capacity installed is less than 25 kw-hrs. per month per horse power.

Schedule E applies to consumers whose use of the capacity installed is 25 kw-hrs. or more per month per horse power.

Quantity discount: When the gross bills at Schedules D and E exceed:

\$100.00 per month, 10% discount will be allowed

\$200.00 per month, 15% discount will be allowed

\$300.00 per month, 20% discount will be allowed

\$500.00 per month, 25% discount will be allowed

Cash discount, 10% if paid within 10 days

Street lighting—

168 $7\frac{1}{2}$ -ampere G. E. enclosed arcs (includes North Mankato)

City pays \$65.00 net per arc per year

Burning schedule, moonlight

MAPLETON (809)

Mapleton Electric Light Company

Method of generation, steam

Number of consumers, 90

Daily operating period, from shortly before sunset till midnight

Commercial lighting—

Meter rates:

12 $\frac{1}{2}$ cts. per kw-hr.

Flat rates:

60 cts. per 40-watt lamps

Street lighting—

38 60-watt mazdas; 12 burn on a moonlight schedule, 26 from dark till midnight. City pays \$50.00 per month

MARBLE (887)

Municipal Distributing System

Current purchased from Oliver Iron Mining Company at 6 cts. per kw-hr.

Number of consumers, 45

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

No minimum charge

10 cts. per kw-hr.

10% discount on bills paid before the 10th of the month

Street lighting—

18 standards, 5 60-watt mazdas to the standard. City pays regular rate of 6 cts. per kw-hr.

Burning schedule, dusk to daylight

MARSHALL (2,152)

Municipal Plant

Method of generation, steam

Total yearly generation, 231,781 kw-hrs.

Number of consumers, 300

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 50 cts.

12 cts. per kw-hr.

10% discount if 50 kw-hrs. are used

20% discount if 100 kw-hrs. are used

Commercial power—

Meter rates:

Minimum monthly bill:

1 to 10 h.p. installation, 60 cts. per h.p.

10 to 20 h.p. installation, 50 cts. per h.p.

20 to 30 h.p. installation, 40 cts. per h.p.

30 to 40 h.p. installation, 30 cts. per h.p.

6 cts. per kw-hr.

No discount

Street lighting—

31 6.6-ampere enclosed arcs

12 100-watt series tungsten lamps

28 ornamental posts, 5 lights each, 1 60-watt lamp and 4 40-watt lamps

Lights burn all night except ornamental posts, which burn till 10:00 p.m. and then the top light burns till dawn

Plant credited with \$2,666.00 last fiscal year for street lighting

MELROSE (2,591)

Municipal Plant

Method of generation, steam

Number of consumers, 400

Daily operating period, 18 hours, except Sunday and then, 12 hours

Commercial lighting—

Meter rates:

First 30 kw-hrs., 10 cts. per kw-hr.

Above 30 kw-hrs., 8 cts. per kw-hr.

Great Northern Ry. pays:

12½ cts. per kw-hr. for the first 100 kw-hrs.

10 cts. per kw-hr. for the next 100 kw-hrs.

6 cts. per kw-hr. for all above 200 kw-hrs.

Flat rates:

Hotel is charged \$25.00 per month

25 cts. to 50 cts. per lamp per month, depending on size

Commercial power—

Meter rates:

8 cts. per kw-hr. for the first 100 kw-hrs.

6 cts. per kw-hr. for all over 100 kw-hrs.

Street lighting—

7 250-watt tungstens

70 80-watt carbons

Burn all night

MILACA (1,102)

Municipal Plant

Method of generation, steam

Number of consumers, 116

Daily operating period, 6:00 a.m. to midnight

Commercial lighting—

Meter rates:

Minimum monthly bill, 75 cts.

12½ cts. per kw-hr.

Flat rates:

75 cts. per light per month

Commercial power—

Meter rates:

10 cts. per kw-hr. (Reduction from this rate is being considered)

Street lighting—

4 5-ampere arc lights

56 120-watt lamps. City pays \$1,300.00 per annum

Burning schedule, moonlight

MINNEAPOLIS (301,408)

Minneapolis General Electric Company

Method of generation, water power with large reserve steam plant

Yearly generation, 90,835,808 kw-hrs.

Number of consumers, 25,893

Daily operating period, continuous

Residential lighting rate

Meter rates:

Minimum monthly bill, \$1.00

9 cts. per kw-hr. for the first 3 kw-hrs. per room per month

6 cts. per kw-hr. for additional current

Discount, 5% if paid within discount period

General lighting rate—

Meter rates:

Minimum monthly bill, \$1.00

8 cts. per kw-hr. for the first 100 kw-hrs. per month

7½ cts. per kw-hr. for the next 100 kw-hrs. per month

6½ cts. per kw-hr. for the next 100 kw-hrs. per month

5 cts. per kw-hr. for the next 300 kw-hrs. per month

4½ cts. per kw-hr. for all over 600 kw-hrs. per month

Discount, 5% if paid within discount period

Retail power rate—

Meter rates:

Minimum monthly bill, \$1.00 per month per h.p. for the first 10 h.p. of rated capacity of motors connected

75 cts. per month per h.p. for the next 20 h.p. of rated capacity of motors connected

50 cts. per month per h.p. in excess of 30 h.p. of rated capacity of motors connected

6 cts. per kw-hr. for the first 52 hours' use per month of maximum demand

2½ cts. per kw-hr. for all in excess

Quantity discount:

(Applicable to this schedule only)

- 5% on all bills between \$50.00 and \$100.00 per month
- 10% on all bills between \$100.00 and \$150.00 per month
- 15% on all bills between \$150.00 and \$200.00 per month
- 20% on all bills between \$200.00 and \$250.00 per month
- 25% on all bills over \$250.00 per month

Note:

Demands taken monthly

Discount, 5% if bill is paid within discount period

Commercial power—

Meter rates:

- Minimum monthly bill, \$1.00 per month per h.p. for the first 10 h.p. of rated capacity of motors connected
- 75 cts. per month per h.p. for the next 20 h.p. of rated capacity of motors connected
- 50 cts. per month per h.p. in excess of 30 h.p. of rated capacity of motors connected
- 6 cts. per kw-hr. for the first 200 kw-hrs. per month
- 5 cts. per kw-hr. for the next 200 kw-hrs. per month
- 4 cts. per kw-hr. for the next 200 kw-hrs. per month
- 3 cts. per kw-hr. for all over 600 kw-hrs. per month
- Cash discount of 5% if paid within discount period

Alternative lighting and power rate

Demand charge:

- \$3.50 per month for each kw. of demand for first 10 kw.
- \$2.50 per month for each kw. of demand for next 40 kw.
- \$2.00 per month for each kw. of demand in excess of 50 kw.

Plus energy charge:

- 4½ cts. per kw-hr. for first 400 kw-hrs. per month
- 3½ cts. per kw-hr. for next 600 kw-hrs. per month
- 2½ cts. per kw-hr. for next 3,000 kw-hrs. per month
- 1½ cts. per kw-hr. for next 6,000 kw-hrs. per month
- 1 ct. per kw-hr. for all over 10,000 kw-hrs. per month

Note: Demands taken monthly. Minimum demand in any month shall in no event be considered less than 50% of the highest demand previously registered, no less than 1 kw.

Cash discount of 5% if paid within discount period
2,300-volt alternating current power rate—

(Advantageous for large power users)

1.609 cts. per kw-hr. (1.2 cts. per h.p.h.) up to 20% load factor

1.475 cts. per kw-hr. (1.1 cts. per h.p.h.) from 20% to 30% load factor

1.341 cts. per kw-hr. (1.0 cts. per h.p.h.) from 30% to 40% load factor

1.207 cts. per kw-hr. (.9 cts. per h.p.h.) from 40% to 50% load factor

1.1 cts. per kw-hr. (.82 cts. per h.p.h.) from 50% to 60% load factor

1.00 cts. per kw-hr. (.75 cts. per h.p.h.) for load factor of 60% and over

This schedule of low power rates is based on the sale of alternating current in large quantities for power purposes on a long term contract (10 years), with higher guarantees per h.p. of demand than required in the other power schedules.

Current to be measured and delivered to the customer at approximately 2,300 volts. If any other pressure is desired the necessary transformers for raising or lowering the voltage shall be furnished by the consumer.

This contract carries a minimum monthly bill of \$200.00 plus \$1.00 for each h.p. of maximum demand in excess of 100 h.p.

The rate charged per kw-hr. (or per h.p.h.) will be based on monthly load factor as set forth in schedule.

The maximum demand used in determining monthly minimum bill shall be determined by the highest demand recorded during any fifteen (15) minute period during such month; but the consumer shall have the privilege of varying the requirements monthly, and charges shall be based accordingly, provided, however, that the minimum bills shall at no time during the remainder of the year be based upon a demand less than 50% of the highest demand previously registered.

The consumer agrees to pay this amount even though consumption of current should equal a less sum.

A recording wattmeter and a demand meter will be installed on the premises of each consumer, and all bills will be based on the records of these instruments.

Above rates apply to all customers located on the established wholesale alternating current circuits of the company.

Street lighting—

2,800 6.6-ampere magnetic arcs. Rate, \$60.00 per annum per arc

970 ornamental posts, each with 5 60-watt incandescents. Rate, \$45.00 per annum per post

Burning schedule, 3,830 hours per annum

MINNEOTA (819)

Citizens Light, Heat and Power Company

Current transmitted from Canby

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

15 cts. per kw-hr.

Street lighting—

30 100-watt lamps. Rate, \$65.00 per month

Burning schedule (probably all night)

MONTVIDEO (3,056)

The Montevideo Light and Power Company

Method of generation, hydraulic and steam power

Number of consumers, 992

Daily operating period, continuous

Commercial lighting—

Meter rates:

No minimum charge except 25 cts. meter rental

First 30 hours of total installation, 13 cts. per kw-hr.

All over that, 7 cts. per kw-hr.

10% discount if paid before the 28th of the month

Commercial power—

Meter rates:

First 19.4 kw-hrs. per h.p. installed, 10 cts. per kw-hr.

All above that, $2\frac{1}{2}$ cts. per kw-hr.

Discount and meter rent same as above

Street lighting—

10 arcs. Rate, \$72.00 per arc per annum

122 60-watt tungstens; \$14.60 per lamp per annum

Lights burn all night on a moonlight schedule

MONTGOMERY (1,267)

Le Sueur County Electric Light and Power Company

(Continental Utilities Company of Delaware)

Method of generation, kerosene and gasoline

Number of consumers, 84

Daily operating period, continuous

Commercial lighting

Meter rates:

Minimum monthly bill, \$1.00 for residences and \$1.50 for stores

First 10 kw-hrs., 16 cts. per kw-hr.

11 kw-hrs. and over, 12 cts. per kw-hr.

Street lighting—

7 standard 2,000-c.p. arcs; \$60.00 per annum per arc

35 80-c.p. tungstens; \$25.50 per annum

Aggregate, \$1,312.50 per annum

Burning schedule, dusk to 1:00 a.m.

MOORHEAD (4,840)

Municipal Plant

Method of generation, steam

Yearly generation in 1913 was 862,380 kw-hrs.

Number of consumers, 956 light, 27 power

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00, 25 cts. of which is meter rental

First 200 kw-hrs., 8 cts. per kw-hr.
 Next 100 kw-hrs., 7 cts. per kw-hr.
 Next 100 kw-hrs., 6 cts. per kw-hr.
 Next 200 kw-hrs., 5 cts. per kw-hr.
 Next 400 kw-hrs., $4\frac{1}{2}$ cts. per kw-hr.
 Above 1,000 kw-hrs., 4 cts. per kw-hr.
 Electric sign lighting, 4 cts. per kw-hr.
 Bills net if paid by 10th of following month
 10% penalty added if paid later

Commercial power—

Meter rates:

First 200 kw-hrs., 6 cts. per kw-hr.
 Next 200 kw-hrs., 5 cts. per kw-hr.
 Next 400 kw-hrs., 4 cts. per kw-hr.
 All above 800 kw-hrs., 3 cts. per kw-hr.
 Same provisions for minimum bill and prompt payment as
 above

Street lighting

81 5-light ornamental posts
 175 mazdas. City pays 4 cts. per kw-hr.
 Burning schedule, all night

MORGAN (553)

Wherland Electric Company

Current from Redwood Falls
 Number of consumers, 100
 Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00
 17 cts. per kw-hr. for the first hour burning
 11 cts. per kw-hr. for the second hour burning
 7 cts. per kw-hr. for all over three hours burning
 In business places, full installation of the wattage of all
 lamps, less unlighted places by daylight
 In residence places, 60% of the wattage of all lamps in-
 stalled

Discount: The company allows a discount of 10% if bills are paid within 10 days. This discount, however, is good only in trade, and only on the 20th day of December, when each consumer may secure electrical apparatus, to the amount of the discounts for the entire year

Commercial power—

Meter rates:

Minimum monthly bill, \$1.00 per h.p.

10 cts. per kw-hr. for the first 10 kw-hrs. per h.p.

8 cts. per kw-hr. for the next 5 kw-hrs. per h.p.

6 cts. per kw-hr. for the next 5 kw-hrs. per h.p.

4 cts. per kw-hr. for all over 20 kw-hrs. per h.p.

Street lighting—

30 40-watt lamps burning all night. City pays \$48.00 a month

MORRIS (1,685)

Otter Tail Power Company

Method of generation, water power and steam

Yearly current used, 300,000 kw-hrs.

Number of consumers, 300

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

Service charge:

1½ cts. per c.p. installed

12 cts. per kw-hr. for primary portion of current

6 cts. per kw-hr. for secondary portion of current

3 cts. per kw-hr. for all above secondary portion of current

Discount, 10% if bill is paid by the 10th of month

Commercial power—

Meter rates:

10 cts. per kw-hr. for primary portion of the current

5 cts. per kw-hr. for secondary portion of the current

3 cts. per kw-hr. for all above the secondary portion

Street lighting—

120 lights, 500-watt, 250-watt, and 100-watt mazdas
City pays \$176.00 a month
Burning schedule, all night

MOUNTAIN IRON (1,343)

Municipal Plant

Method of generation, steam

Number of consumers, 132

Daily operating period, 4:00 p.m. to 7:00 a.m.

Commercial lighting—

Meter rates:

Minimum monthly bill, 50 cts. per month

10 cts. per kw-hr.

Discount, 10% if bill is paid within 10 days

Commercial power—

5 cts. per kw-hr.

Discount, same as above

Street lighting—

47 ornamental white way standards

14 arc lights

MOUNTAIN LAKE (1,081)

Mountain Lake Milling Company

Method of generation, steam. (It is a new plant, just started before the report was sent in)

Daily operating period, sunset to midnight

Commercial lighting—

12 cts. per kw-hr.

Street lighting—

40 clusters; \$75.00 per month

NASHUAUK (2,080)

Municipal Plant

Number of consumers, 160

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

Minimum monthly bill, 50 cts.

9 cts. per kw-hr.

Flat rates:

\$1.00 per light per month

10% discount on all bills if paid before the 10th of the following month

Street lighting—

85 40-watt tungstens. Rate, \$1.00 per light per month

Burning from dark to daylight

NEW PRAGUE (1,554)

Municipal Plant

Method of generation, steam

Total yearly current generated, 49,000

Number of consumers, 148

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

Minimum monthly bill, \$1.00

10 cts. per kw-hr. with quantity discounts as follows, when bill is paid by 15th of the month:

On bills from \$2.50 to \$5.00, 10%

On bills from \$5.00 to \$7.50, 12%

On bills from \$7.51 to \$10.00, 14%

On bills from \$10.01 to \$12.50, 16%

On bills from \$12.51 to \$15.00, 18%

On bills from \$15.01 to \$20.00, 20%

On bills from \$20.01 to \$30.00, 25%

On bills from \$30.01 and over, 30%

Street lighting—

110 incandescents

3 arc lights. City does not pay any charge for public lighting

Burning schedule, from dark to midnight and on certain mornings

NEW RICHLAND (685)

Bretein and Engle

Method of generation, steam

Number of consumers, 78

Daily operating period, 4:00 p.m. to midnight

Commercial lighting—

Meter rates:

10 cts. per kw-hr.

Flat rates:

65 cts. for each 16-c.p. lamp

Commercial power—

Meter rates:

5 cts. per kw-hr.

Street lighting—

3 arc lights, 1,200-c.p. Rate, \$7.00 per month per arc

21 16-c.p. incandescents. Rate, \$1.25 per month per lamp

Burning from dark to midnight

NEW ULM (5,648)

Municipal Plant

Number of consumers, 815

Daily operating periods, continuous

Commercial lighting—

Meter rates:

8 cts. per kw-hr.

5% discount if monthly bill is over \$15.00

10% discount if monthly bill is over \$30.00

Commercial power

Meter rates:

5 cts. per kw-hr.

5% discount if monthly bill is over \$25.00

Street lighting—

106 6.6-ampere arcs

44 ornamental 5-light posts

Burning on a moonlight schedule

NORTH BRANCH (624)

Eastern Minnesota Power Company

Method of generation, steam and water power

Number of consumers, 80

Daily operating period, continuous

Commercial lighting—

See rates of Pine City

Street lighting—

17 60-watt mazdas. City pays \$2.00 each per month for current, renewals and attendance

Burning schedule, all night

NORTHFIELD (3,265), including DUNDAS (357) and
RANDOLPH (182)

Consumers Power Company

Method of generation, water power and steam

Yearly current generated, 500,000 kw-hrs.

Number of consumers, 800

Daily operating period, continuous

Commercial lighting and power—

A minimum monthly service charge of \$1.00 net will be made for each meter installed, to lighting consumers and for each horse power connected to power consumers.

A reconnection charge of \$1.00 net will be made for each and every meter reset when meter is taken out by reason of consumer becoming delinquent.

LIGHTING RATES (METER RATES)

Kw-hrs.		Schedule A Cts. per Kw-hr.	Schedule B Cts. per Kw-hr.	Schedule C Cts. per Kw-hr.
First	100.....	10.0	9.0	8.0
Next	100.....	9.0	7.0	6.0
Next	300.....	7.0	6.0	5.0
Next	500.....	6.0	5.0	4.5
Next	1,000.....	5.0	4.0	4.0
Next	1,000.....	4.0	3.5	3.5
Next	1,000.....	3.5	3.4	3.4
Next	1,000.....	3.4	3.3	3.3
Next	1,000.....	3.3	3.2	3.2
Next	1,000.....	3.2	3.1	3.1
Next	1,000.....	3.1	3.0	3.0
Next	1,000.....	3.0	2.9	2.9
Next	1,000.....	2.9	2.8	2.8

Above rate also applies to power installations of less than one horse power

POWER RATES (METER RATES)

Kw-hrs.		Schedule D Cts. per Kw-hr.	Schedule E Cts. per Kw-hr.
First	100.....	5.5	4.5
Next	400.....	5.0	4.0
Next	500.....	4.0	3.5
Next	1,000.....	3.5	3.2
Next	3,000.....	3.4	3.1
Next	5,000.....	3.3	3.0
Next	5,000.....	3.2	2.9
Next	10,000.....	3.1	2.8
Next	10,000.....	3.0	2.7
Next	15,000.....	2.9	2.6

Above rate applies to installations of one horse power and over.

Schedule A applies to residence consumers and consumers whose use of capacity installed is less than 3 kw-hrs. per 50-watt lamp or equivalent thereof per month.

Schedule B does not apply to residence lighting but applies to consumers whose use of the capacity installed is 3 kw-hrs. and less than 5 kw-hrs. per 50-watt lamp or equivalent thereof per month.

Schedule C does not apply to residence lighting but applies to consumers whose use of the capacity installed is 5 kw-hrs. and over per 50-watt lamp or equivalent per month.

Schedule D applies to consumers whose use of the capacity installed is less than 25 kw-hrs. per month per horse power.

Schedule E applies to consumers whose use of the capacity installed is 25 kw-hrs. or more per month per horse power.

The above lighting and power rates are subject to a discount of 10% if bills are paid at the office of the company on or before 10 days from the date of rendering thereof. If not paid on or before 10 days from the date of rendering of bills, no discount will be allowed, and the service will be discontinued without further notice on or after 15 days from the rendering of the bill at the option of the company.

Street lighting—

140 lights in all: 400-c.p. tungsten, 48-c.p. tungsten, 32-c.p. tungsten. City pays \$55.00, \$12.50, and \$10.20 per annum respectively

Burning all night on a moonlight schedule

NORTH MANKATO

(See Mankato rates)

NORTH ST. PAUL (1,404)

Municipal Plant

Method of generation, steam

Number of consumers, 193

Daily operating period, 20 hours a day

Commercial lighting—

Meter rates:

First 300 kw-hrs., 10 cts. per kw-hr.

Next 150 kw-hrs., 8 cts. per kw-hr.

All over 450 kw-hrs., 6 cts. per kw-hr.

Commercial power—

Meter rates:

First 1,000 kw-hrs., 5 cts. per kw-hr.

Second 1,000 kw-hrs., $4\frac{1}{2}$ cts. per kw-hr.

Third 1,000 kw-hrs. and over, 4 cts. per kw-hr.

For fraction of plant equipment, 6 cts. per kw-hr. net

Discount of 5% on bills of over \$1.25

Street lighting—

10 arc lights

75 incandescents

Burning schedule, average about 6 hours

NYMORE (834)

Warfield Electric Company

Method of generation, steam and water power

Commercial lighting—

Meter rates:

10 cts. per kw-hr.

Flat rates:

\$1.25

ORTONVILLE (1,774)

Municipal Plant

Method of generation, steam

Total yearly generation, 89,000 kw-hrs.

Number of consumers, 250

Daily operating period, continuous

Commercial lighting—

Meter rates:

15 cts. per kw-hr. for first 70 hrs. per month of 60% installation

10 cts. per kw-hr. for all excess current

Bills are subject to discount of 2 cts. per kw-hr. and 25 cts. on the minimum charge if paid on or before the 15th of the month

Meter rental, 25 cts. per month

Commercial power—

Meter rates:

- Minimum monthly bill, \$1.00 per h.p. of installation
- First 60 kw-hrs. of maximum demand, 10 cts. per kw-hr.
- Above 60 kw-hrs., 5 cts. per kw-hr.
- Meter rental, same as above

Street lighting—

- 100 16-watt tungsten lamps. Rate, 10 cts. per kw-hr.
- Moonlight burning schedule

OSAKIS (1,013)

Osakis Milling Company

Method of generation, steam

Yearly current generated, 27,000 kw-hrs.

Number of consumers, 118

Daily operating period, "As needed. All day if necessary"

Commercial lighting—

Meter rates:

- Minimum monthly bill, \$1.25
 - 20 cts. per kw-hr. for residence lights
 - 15 cts. per kw-hr. for commercial lights
 - Discount on residence bills of 25% if over \$4.00 per month
- Flat rates:

60 cts. per 40-watt mazda per month

Street lighting—

- 8 enclosed arcs. City pays \$72.00 per annum per lamp
- 21 40-watt mazdas. City pays \$18.00 per annum per lamp
- Burning on a moonlight schedule to 1:30 a.m.

OWATONNA (5,658)

Public Service Operating Company

Method of generation, steam

Yearly current generated, 600,000 kw-hrs.

Number of consumers, 774

Daily operating period, continuous

Commercial lighting—

LIGHTING RATES (METER RATES)

Kw-hrs.		Schedule A Cts. per Kw-hr.	Schedule B Cts. per Kw-hr.	Schedule C Cts. per Kw-hr.
First	100.....	12.0	11.0	10.0
Next	100.....	11.0	9.0	8.0
Next	300.....	9.0	8.0	7.0
Next	500.....	8.0	7.0	6.5
Next	1,000.....	7.0	6.0	6.0
Next	1,000.....	6.0	5.5	5.5
Next	1,000.....	5.5	5.4	5.4
Next	1,000.....	5.4	5.3	5.3
Next	1,000.....	5.3	5.2	5.2
Next	1,000.....	5.2	5.1	5.1
Next	1,000.....	5.1	5.0	5.0
Next	1,000.....	5.0	4.9	4.9
Next	1,000.....	4.9	4.8	4.8

Above rates also apply to power installations of less than one horse power

POWER RATES (METER RATES)

Kw-hrs.		Schedule D Cts. per Kw-hr.	Schedule E Cts. per Kw-hr.
First	100.....	7.5	5.5
Next	400.....	7.0	5.5
Next	500.....	6.0	4.5
Next	1,000.....	5.5	4.2
Next	3,000.....	5.4	4.1
Next	5,000.....	5.3	4.0
Next	5,000.....	5.2	3.9
Next	10,000.....	5.1	3.8
Next	10,000.....	5.0	3.7
Next	10,000.....	4.9	3.6

Above rate applies to installations of one horse power or over

Schedule A applies to residence consumers and consumers whose use of the capacity installed is less than 3 kw-hrs. per 50-watt lamp or equivalent per month.

Schedule B does not apply to residence but applies to other consumers whose use of the capacity installed is 3 kw-hrs. and less than 5 kw-hrs. per 50-watt lamp or equivalent thereof per month.

Schedule C does not apply to residence lighting but applies to other consumers whose use of the capacity installed is 5 kw-hrs. and over per 50-watt lamp or equivalent thereof per month.

Schedule D applies to consumers whose use of the capacity installed is less than 25 kw-hrs. per month per horse power.

Schedule E applies to consumers whose use of the capacity installed is 25 kw-hrs. or more per month per horse power.

The above lighting and power rates are subject to a discount of 10 per cent if bills are paid at the office of the company on or before 10 days from the date of the rendering thereof. If not paid on or before 10 days from the date of rendering of bills no discount will be allowed, and the service discontinued without further notice on or after 15 days from the rendering of the bill at the option of the company.

The minimum monthly service charge of \$1.00 net will be made for each meter installed, to lighting customers and for each horse power connected to power consumers.

A reconnection charge of \$1.00 net will be made for each and every meter reset when meter is taken out by reason of consumer becoming delinquent; also for resetting meter removed from premises for a period of but one month or less; two months or more, no charge.

Street lighting—

58 4-ampere luminous arcs, burning on a Philadelphia moon-light schedule. Rate, \$65.00 per annum per arc

48 6.6-ampere luminous arcs, burning from dusk to 10:00 p.m.
Rate, 5 cts. per kw-hr.

PARK RAPIDS (1,801)

Park Rapids Hydro-Electric Company

Method of generation, water power

Daily operating period, continuous

Commercial lighting

Meter rates:

First 40 kw-hrs., 10 cts. per kw-hr.

Next 40 kw-hrs., 9 cts. per kw-hr.

Next 40 kw-hrs., 8 cts. per kw-hr.

Next 40 kw-hrs., 7 cts. per kw-hr.

Next 40 kw-hrs., 6 cts. per kw-hr.

Meter rent, 25 cts.

Commercial power—

Meter rates:

Less than 2 h.p., the lighting rates apply

2 h.p. to 5 h.p., 6 cts. per kw-hr.

5 h.p. to 10 h.p., 5 cts. per kw-hr.

10 h.p. and above, 4 cts. per kw-hr.

Street lighting

24 enclosed arcs. Rate, \$5.00 a month for each arc

Burning on a moonlight schedule

PAYNESVILLE (901)

Municipal Plant

Method of generation, steam

Number of consumers, 153

Daily operating period, from 6:00 a.m. to midnight

Commercial lighting—

Meter rates:

10 cts. per kw-hr.

Commercial power—

Meter rates:

First 200 kw-hrs., 8 cts. per kw-hr.

Second 200 kw-hrs., 7 cts. per kw-hr.

Next 100 kw-hrs., 6 cts. per kw-hr.

Next 100 kw-hrs., 5 cts. per kw-hr.

All over 600 kw-hrs., 4 cts. per kw-hr.

Flat rates:

\$1.00 per h.p. per month. ("Most of power motors are on meters")

Street lighting—

60 tungstens. Plant is credited \$50.00 a month

Burning on a moonlight schedule till midnight

PELICAN RAPIDS (1,019)

Municipal Plant

Method of generation, steam and water power. City buys current from a local mill at $2\frac{1}{2}$ cts. per kw-hr., whenever the private company has water enough for both milling and electric purposes

Yearly current, 46,335 kw-hrs.

Number of consumers, 170

Daily operating period, dusk till 12:00 m. Expect 18-hour service in the near future

Commercial lighting—

Meter rates:

Minimum monthly bill, 50 cts.

12 cts. per kw-hr.

Street lighting—

14 5-light ornamental posts in business district, burning till 10:30 p. m.; the top light burns till midnight

4 A. B. arcs, burning till 10:30 p.m.

40 incandescents, burning till 10:30 p.m.

City pays 10 cts. per kw-hr.

PERHAM (1,376)

Municipal Plant

Method of generation, steam

Number of consumers, 173

Daily operating period, dusk to daylight

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00; meter rental, 25 cts.

$12\frac{1}{2}$ cts. per kw-hr.

Flat rates:

Same minimum

House lights, 40 cts.

Barn lights, 30 cts.

Office lights, 60 cts.

Store lights, 70 cts.

Street lighting—

15 arc lights

4 cluster lights, mazdas

30 single incandescents

City pays 10 cts. per kw-hr.

Lights burn all night

PIERZ (545)

Municipal Plant

Number of consumers, 65

Daily operating period, continuous

Commercial lighting and power—

Meter rate:

10 cts. per kw-hr.

If bill is less than \$1.00, 25 cts. meter rent is charged

Street lighting—

20 tungsten side lamps

City pays \$288.80 cash in year 1914

Burning schedule, darkness till 11:00 or 12:00 o'clock

PINE CITY (1,258)

Eastern Minnesota Power Company

Method of generation, steam and water power

Number of consumers, 175

Daily operating period, continuous

Commercial lighting—

Meter rates:

10 cts. per kw-hr. for the first 30 kw-hrs.

8 cts. per kw-hr. for the next 20 kw-hrs.

7½ cts. per kw-hr. for the next 50 kw-hrs.

6 cts. per kw-hr. for the next 100 kw-hrs.

5 cts. per kw-hr. for all over 200 kw-hrs.

Commercial power—

Meter rates:

5 cts. per kw-hr. for small loads from 5 to 10 h.p.

4 cts. per kw-hr. for off-peak loads of 15 h.p. or over
1½ cts. is charged the flour mills on steady operating days
when 30,000 kw-hrs. monthly are consumed

Street lighting—

47 60-watt mazdas. City pays \$2.00 each per month
Burning schedule all night

Same commercial rates in force in Rock Creek, Rush City,
Harris, North Branch, Grandy, Hanchfield, Braham, and
Grasson, all of which are supplied by the same company.

PINE ISLAND (834)

Pine Island Roller Mill and Electric Light Company

Method of generation, steam

Total yearly generation, 50,000 kw-hrs.

Number of consumers, 135

Daily operating period, from dusk till 11:15 p.m.

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

12½ cts. per kw-hr.

Street lighting—

Burning on a moonlight schedule, till 11:15 p.m.

26 lamps, arcs and mazdas

City pays \$65.00 a month

PLAINVIEW (1,175)

Plainview Electric Light and Power Company

Method of generation, steam and producer gas

Number of consumers, 175

Daily operating period, dusk to midnight, 5:30 a.m. to daylight;
also all forenoon on Monday, Tuesday, and Wednesday

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00, 25 cts. meter rental

12 cts. per kw-hr. for the first 20 kw-hrs.

10 cts. per kw-hr. for the next 20 kw-hrs.

8 cts. per kw-hr. for all over 40 kw-hrs.

Commercial power—

Meter rates:

6 cts. per kw-hr.

Street lighting—

63 lamps, arcs and incandescents

City pays \$97.50 per month

Burning on a moonlight schedule

PRESTON (1,193)

Municipal Plant

Method of generation, steam

Number of consumers, 200

Daily operating period, "to 12:00 o'clock midnight and from
5:30 a.m. to 8:00 a.m. from November to April 1"

Commercial lighting—

Meter rates:

"10 cts. first 50 kw-hrs. per month"

Flat rates:

50 cts. for 60-watt lamp per month

Street lighting—

53 60-watt lamps. (No more details)

PRINCETON (1,555)

Municipal Plant

Method of generation, steam

Number of consumers, 300

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 75 cts.

12½ cts. per kw-hr.

Commercial power—

Meter rates:

Minimum monthly bill, as follows:

\$1.00 per h.p. for motors up to 5 h.p.

75 cts. per h.p. for motors from 5 h.p. to 10 h.p.

50 cts. per h.p. for motors of more than 10 h.p.

8 cts. per kw-hr.

Street lighting—

Municipality charged \$12.00 per annum for street lighting

PROCTORKNOTT (2,243)

Proctor Water and Power Company

Current purchased

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 25 cts.

10 cts. per kw-hr. for all current up to 200 kw-hrs.

9 cts. per kw-hr. for 200 to 300 kw-hrs.

6½ cts. per kw-hr. for 300 to 500 kw-hrs.

5 cts. per kw-hr. for 500 kw-hrs. or more

Discount of 20% if bill is paid by 17th of month

Heating rates—

Meter rates:

Minimum monthly bill, \$1.25

3 cts. per kw-hr.

Commercial power—

Meter rates:

1 h.p. or less, 6 cts. per kw-hr.; minimum per month, \$2.50

1 h.p. to 5 h.p., 5 cts. per kw-hr.; minimum per month, \$5.00

5 h.p. to 15 h.p., 4 cts. per kw-hr.; minimum per month, \$7.50

15 h.p. or more, 3 cts. per kw-hr.; minimum per month, \$1.00 per h.p.

These power rates are not in effect because power users consume so little electricity that it is cheaper to use the 10-cent lighting rate.

Street lighting—

16 arc lights. City pays \$49.00 per annum per lamp

14 2-light clusters. City pays \$18.00 per annum per lamp

3 250-watt tungstens. City pays \$2.05 per month per lamp

Burning schedule, all night

RED LAKE FALLS (1,757)

Red River Power Company

Method of generation, water power

Number of consumers, 255

Daily operating period, continuous

Commercial lighting—

Meter rates:

Monthly minimum bill, \$1.00

First 100 kw-hrs., 11 cts. per kw-hr.

Next 100 kw-hrs., 9 cts. per kw-hr.

Next 300 kw-hrs., 6 cts. per kw-hr.

Next 500 kw-hrs., 5 cts. per kw-hr.

Next 1,000 kw-hrs., 4.5 cts. per kw-hr.

Next 1,000 kw-hrs., 4.25 cts. per kw-hr.

Next 1,000 kw-hrs., 4.2 cts. per kw-hr.

Next 1,000 kw-hrs., 4.1 cts. per kw-hr.

Next 1,000 kw-hrs., 4 cts. per kw-hr.

Next 1,000 kw-hrs., 3.9 cts. per kw-hr.

Next 1,000 kw-hrs., 3.8 cts. per kw-hr.

Next 1,000 kw-hrs., 3.75 cts. per kw-hr.

Next 1,000 kw-hrs., 3.7 cts. per kw-hr.

Next 10,000 kw-hrs., 3.65 cts. per kw-hr.

Next 10,000 kw-hrs., 3.6 cts. per kw-hr.

Next 20,000 kw-hrs., 3.55 cts. per kw-hr.

This rate applies also to power installations of less than one horse power.

Discount, 10%, if bill is paid within 10 days of its rendering

Flat rates:

Sign Service Where Signs are Owned by the Company

Signs having their letters traced by lamps and having
2-c.p. carbon lamps, 5 hours burning, rate per lamp per month,
20 cts.4-c.p. tungsten lamps, 5 hours burning, rate per lamp per month
20 cts.

Panel signs:

4-c.p. carbon lamps, 5 hours burning, rate per lamp per month,
40 cts.8-c.p. carbon lamps, 5 hours burning, rate per lamp per month,
55 cts.

Sign Service Where Signs are Owned by the Consumer

Signs having their letters traced by lamps having

2-c.p. carbon lamps, 5 hours burning, rate per lamp per month,
13 cts.4-c.p. tungsten lamps, 5 hours burning, rate per lamp per month,
13 cts.

Panel signs:

4-c.p. carbon lamps, 5 hours burning, rate per lamp per month,
31 cts.8-c.p. carbon lamps, 5 hours burning, rate per lamp per month,
44 cts.

5 hours burning to mean from dark till midnight

Discount, same as above

Commercial power—

Meter rates:

A minimum monthly service charge of \$1.00 net per horse
power of connected capacity will be made

First 500 kw-hrs., 6.66 cts. per kw-hr.

Next 500 kw-hrs., 4.2 cts. per kw-hr.

Next 1,000 kw-hrs., 4.15 cts. per kw-hr.

Next 1,000 kw-hrs., 4 cts. per kw-hr.

Next 2,000 kw-hrs., 3.85 cts. per kw-hr.

Next 5,000 kw-hrs., 3.7 cts. per kw-hr.

Next 10,000 kw-hrs., 3.55 cts. per kw-hr.

Next 10,000 kw-hrs., 3.4 cts. per kw-hr.

Next 20,000 kw-hrs., 3.3 cts. per kw-hr.

For power installation of 25 h.p. or over, operating at a load factor of 25%, or higher (24 hours basis, 26 days per month), a flat meter rate of 3.33 cts. per kw-hr.

Discount, same as above

Street lighting--

27 G. E. City pays \$73.00 a month

Burning on a moonlight schedule

RED WING (9,048)

Red Wing Gas Light and Power Company

(American Public Utilities Company)

Method of generation, current purchased from Minnesota-Wisconsin Power Company, gas engine auxiliary

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 75 cts.

First 75 kw-hrs., 11 cts. per kw-hr.

More than 75 kw-hrs., 7 cts. per kw-hr.

Discount, 1 ct. per kw-hr., if bill is paid within 10 days

Commercial power—

Meter rates:

Demand charge: \$1.00 per connected h.p. per month, in addition to which the following energy charges are made:

ENERGY RATE SCHEDULE

From 1- to 4-h.p. rate (inclusive)

Up to 100 hrs. use of connected load in kw-hrs., 4 cts. per kw-hr.

101 to 200 hrs. use of connected load in kw-hrs., $3\frac{1}{2}$ cts. per kw-hr.

201 to 300 hrs. use of connected load in kw-hrs., 3 cts. per kw-hr.

Above 300 hrs. use of connected load in kw-hrs., $2\frac{1}{2}$ cts. per kw-hr.

From 5- to 25-h.p. rate (inclusive)

Up to 100 hrs. use of connected load in kw-hrs., $3\frac{1}{2}$ cts. per kw-hr.

101 to 200 hrs. use of connected load in kw-hrs., 3 cts. per kw-hr.

201 to 300 hrs. use of connected load in kw-hrs., $2\frac{1}{2}$ cts. per kw-hr.

Above 300 hrs. use of connected load in kw-hrs., 2 cts. per kw-hr.

From 26- to 75-h.p. rate (inclusive)

Up to 100 hrs. use of connected load in kw-hrs., 3 cts. per kw-hr.

101 to 200 hrs. use of connected load in kw-hrs., $2\frac{1}{2}$ cts. per kw-hr.

201 to 300 hrs. use of connected load in kw-hrs., 2 cts. per kw-hr.

Above 300 hrs. use of connected load in kw-hrs., $1\frac{1}{2}$ cts. per kw-hr.

5% discount on all bills paid on or before the 10th of the following month; no discounts to customers in arrears

Street lighting—

94 4-ampere luminous arcs. Rate, \$60.00 per annum per arc

114 25-watt tungstens. Rate, \$12.00 each per annum

Burning all night and every night

RENVILLE (1,182)

Montevideo Electric Light and Power Company

Method of generation, water power and steam

Number of consumers, 74. (Company started December 1, 1913)

Daily operating period, continuous

Commercial lighting—

Meter rates:

First 30 hrs. of total installation, 13 cts. per kw-hr.

All above that, 7 cts. per kw-hr.

10% discount for prompt payment

Commercial power—

Meter rates:

First 19.4 kw-hrs. per h.p. installed, 10 cts. per kw-hr.

All above that, $2\frac{1}{2}$ cts. per kw-hr.

Discount same as above

These rates apply also in Montevideo and Sacred Heart

ROCHESTER (7,844)

Municipal Plant

Method of generation, steam

Yearly generation, 1,500,000 kw-hrs.

Number of consumers, 1,450

Daily operating period, continuous

Commercial lighting—

Meter rates:

Monthly minimum bill, 80 cts.

First 20 kw-hrs., 10 cts. per kw-hr.

Next 100 kw-hrs., 7 cts. per kw-hr.

All over 120 kw-hrs., 6 cts. per kw-hr.

Discount, 10% if paid by 10th of the month

Commercial power—

Meter rates:

Monthly minimum bill, \$2.00

First 100 kw-hrs., 6 cts. per kw-hr.

Next 2,000 kw-hrs., 4 cts. per kw-hr.

Above 2,100 kw-hrs., 3 cts. per kw-hr.

Discount, same as above

Street lighting—

140 ornamental cluster posts, 5 series mazdas each

140 series arcs

City pays 7 cts. per kw-hr.

Cluster lights burn all night, 100 arcs till midnight

ROSEAU (644)

Municipal Plant

Method of generation, steam

Number of consumers, 75

Daily operating period, all night

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

15 cts. per kw-hr.

Discount, 5% if bill is paid by 15th of following month

Commercial power—

Meter rates:

12 cts. per kw-hr.

Discount and minimum bill same as above

Street lighting—

32 goosenecks and 4-light clusters

Burning schedule, dark till midnight; 4:00 a.m. till daylight

ROYALTON (676)

Royalton Power and Light Company

Current purchased from Little Falls Water Power Company

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

Meter rental, 25 cts.

11 cts. per kw-hr.

Discount of 10% if bill is paid before 10th of following month

Street lighting—

30 250-c.p. lamps. City pays \$84.00 per month

RUSHFORD (Village, 686; City, 1,011)

Municipal Plant

Method of generation, water power and steam

Number of consumers, 210

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 20 cts. meter rental and 25 cts. for current.

8 cts. per kw-hr.

Flat rates:

50 cts. per month for each 60-watt lamp

Street lighting—

80 lamps, carbons and tungstens

City pays $4\frac{3}{4}$ cts. per kw-hr.

Burning schedule, dusk till 11:30 p.m.

ST. CHARLES (1,159)

Municipal Plant

Method of generation, steam

Number of consumers, 165

Daily operating period, all night

Commercial lighting—

Meter rates:

Minimum monthly bill, 75 cts.

"12 cts. to 7 cts. per kw-hr. according to amount used"

Flat rates:

50 cts. to 25 cts. per lamp per month "according to number of lights in building"

Street lighting—

64 tungstens

Burning schedule, moonlight

ST. CLOUD (10,600)

Public Service Company

Method of generation, water power

Daily generation, 13,200 kw-hrs. (approximately)

Number of consumers, 2,004

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

0 to 100 kw-hrs., 11 cts. per kw-hr.

101 to 200 kw-hrs., 9 cts. per kw-hr.

201 to 500 kw-hrs., $6\frac{1}{2}$ cts. per kw-hr.

Above 500 kw-hrs., $5\frac{1}{2}$ cts. per kw-hr.

Discount, 1 ct. per kw-hr. if bill is paid by 10th of following month

Flat rate:

Porch lights, 10-c.p. lamp, 50 cts. a month for service to midnight

Commercial power—

Meter rates:

Minimum monthly bill, \$1.00 per h.p. for all motors installed

0 to 500 kw-hrs., 7 cts. per kw-hr.

501 to 1,000 kw-hrs., 5 cts. per kw-hr.

Above 1,000 kw-hrs., 4 cts. per kw-hr.

Discount, 1 ct. per kw-hr. if bill is paid by 10th of following month

Street lighting—

50 7.5-ampere enclosed arcs

50 4-ampere magnetite arcs. City pays \$65.00 per annum per arc, this year, and \$60.00 per annum per arc thereafter

Burning all night

ST. PAUL (214,744)

Consumers Power Company

St. Paul Gas Light Company

Method of generation for both plants, water power and steam

Yearly generation, Consumers Power Company, 13,995,940 kw-hrs.; St. Paul Gas Light Company, 21,867,923 kw-hrs.

Number of consumers, Consumers Power Company, 3,546; St. Paul Gas Light Company, 8,723

Daily operating period, continuous

Residence lighting—

Meter rates:

Minimum monthly bill, \$1.00

First 30 kw-hrs., 11 cts. per kw-hr.

All in excess of 30 kw-hrs., 7.3 cts. per kw-hr.

Discount of 10% if bill is paid by 15th of month following

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

First 100 kw-hrs., 10 cts. per kw-hr.

Next 100 kw-hrs., 9 cts. per kw-hr.

Next 100 kw-hrs., 8 cts. per kw-hr.

Next 300 kw-hrs., 6 cts. per kw-hr.

All over 600 kw-hrs., 5½ cts. per kw-hr.

Discount same as for residence lighting

Commercial power—

Meter rates:

Minimum monthly bill, \$1.00 per h.p.

First 52 hrs. use per month of maximum demand, 7.3 cts. per kw-hr.

All over this, 3 cts. per kw-hr.

Discount, same as above

Street lighting—

450 series carbon arcs (A. C.). Rate, \$66.00 per annum per arc

80 7-ampere underground flaming arcs (D. C.). Rate, \$90.00 per arc per annum

400 10-ampere overhead flaming arcs (A. C.), 400 watts.

Rate, \$88.00 per annum per arc for 1914. Rate for 1915 is \$2.00 less

350 ornamental 5-light posts (390 watts to the post). Rate, \$68.00 per annum for each post

Burning schedule, lights on from an hour after sunset till an hour before sunrise, except that during November, December, January, and February, the lights are turned on at sunset

ST. PETER (4,176)

Municipal Plant

Method of generation, steam

Total yearly generation, 225,000 kw-hrs.

Number of consumers, 400

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

1 to 20 kw-hrs., 13½ cts. per kw-hr.

20 to 60 kw-hrs., 11 cts. per kw-hr.

60 to 100 kw-hrs., 10 cts. per kw-hr.

Over 100 kw-hrs., 8 cts. per kw-hr.

Discount, 10% if bills are paid before the 15th of the month

Commercial power

Meter rates:

1 to 200 kw-hrs., 6 cts. per kw-hr.

200 to 400 kw-hrs., 5 cts. per kw-hr.

Above 400 kw-hrs., 4 cts. per kw-hr.

Discount, same as for lighting

Street lighting

60 250-watt series tungstens

3 600-watt arc lamps

8 multiple tungstens, 60 to 100 watts

Burning on a moonlight schedule

SANDSTONE (1,818)

Kettle River Company

Method of generation, water power

Number of consumers, 160

Daily operating period, continuous except Sundays and holidays

Commercial lighting—

Meter rates:

25 cts. for meter rental

First 30 kw-hrs., 10 cts. per kw-hr.

Next 20 kw-hrs., 8 cts. per kw-hr.

All over 50 kw-hrs., 5 cts. per kw-hr.

Commercial power—

Same as lighting rates, except a minimum monthly charge of 50 cts. per h.p.

Company intends to change the breaking points in the sliding scale, raising the average rate somewhat

Street lighting—

5 arc lights

36 40-c.p. incandescents. City pays \$1,100.00 annually

Burning schedule, all night

SAUK CENTRE (2,154)

Central Minnesota Power and Milling Company

Method of generation, steam and water power

Daily operating period, continuous

Commercial lighting—

Meter rates:

10 cts. for the first 50 kw-hrs.

9 cts. for next 50 kw-hrs.

"down to a minimum of 5 cts."

Flat rates:

50 cts. per 16-c.p. lamp per month

Commercial power—

8 cts. for the first 100 kw-hrs.

7 cts. for the next 100 kw-hrs.

"and so on down to 5 cts. minimum rate"

Street lighting—

27 2,000-c.p. arcs. City pays \$90.00 per annum per arc

9 32-c.p. incandescents. City pays \$2.00 per lamp per month

Burning schedule, all night except when moonlight

SHAKOPEE (2,302)

Municipal Plant

Total yearly current generated, 116,000 kw-hrs.

Number of consumers, 250

Daily operating period, continuous

Commercial lighting—

Meter rates:

10 cts. per kw-hr. with the following discounts:

On bills of from \$2.50 to \$5.00, 5%

On bills of from \$5.00 to \$10.00, 10%

On bills of from \$10.00 to \$20.00, 15%

Commercial power—

6 cts. per kw-hr. or \$1.00 per h.p. per month

Street lighting—

100 series mazdas; \$85.00 per month

Burning schedule, dusk to 11:30 p.m.

SHERBURN (814)

Municipal Plant

Method of generation, steam

Number of consumers, 155

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

Minimum charge, 25 cts. per month

First 25 kw-hrs., 14 cts. per kw-hr.

Next 25 kw-hrs., 13 cts. per kw-hr.
Next 25 kw-hrs., 12 cts. per kw-hr.
Next 25 kw-hrs., 11 cts. per kw-hr.
All additional amounts, 10 cts. per kw-hr.

Street lighting—

57 60-watt tungstens
3 500-watt arcs
City pays \$72.40 per month for all

SLEEPY EYE (2,247)

Municipal Plant

Method of generation, steam
Number of consumers, 350
Daily operating period, continuous

Commercial lighting—

Meter rates:
Minimum monthly bill, 50 cts.
10 cts. per kw-hr.

Commercial power—

Meter rates:
6.6 cts. per kw-hr.

Street lighting—

32 ornamental 5-light standards
35 250-watt mazda lamps

SOUTH ST. PAUL (4,510)

Consumers Power Company

Method of generation, water power and steam
Number of consumers, 564
Daily operating period, continuous

Residence lighting—

Meter rates:
Minimum monthly bill, \$1.00 for the first year and 75 cts.
after that

11 cts. per kw-hr.

10% discount for payment within 15 days

Commercial lighting

Meter rates:

Same minimum as for residence lighting

14 cts. per kw-hr. for first 52 hrs. of 70% of connected load
(primary portion)

7 cts. per kw-hr. for all electricity in excess of this amount
(secondary)

Quantity discounts allowed as follows:

On bills of \$50.00 or more, 5%

On bills of \$100.00 to \$150.00, 10%

On bills of \$150.00 to \$200.00, 15%

On bills of \$200.00 to \$250.00, 20%

On bills of \$250.00 or more, 25%

A discount is allowed on all bills for prompt payment (15 days) as follows:

4 cts. per kw-hr. on the primary portion

1 ct. per kw-hr. on the secondary portion

Commercial power—

Meter rates:

Minimum monthly bill:

First 10 h.p. connected, \$1.00 per h.p. per month

Next 20 h.p. connected, 70 cts. per h.p. per month

Balance of connected load, 45 cts. per h.p. per month

SCHEDULE OF RATES

7 cts. per kw-hr. for the first 30 hours or fraction thereof per month use of maximum demand

4 cts. per kw-hr. for the next 30 hours or fraction thereof per month use of maximum demand

3 cts. per kw-hr. for all electricity in excess of above

From the monthly bill figured at the above rates, a quantity discount shall be allowed as follows:

No discount on bills under \$50.00 per month

10% discount on bills of \$50.00 per month

15% discount on bills of \$100.00 per month

20% discount on bills of \$150.00 per month

25% discount on bills of \$200.00 per month
30% discount on bills of \$300.00 per month
35% discount on bills of \$400.00 per month
40% discount on bills of \$500.00 per month and over
Intermediate discounts to be determined by interpolation
A further discount of 10% is allowed on all bills for
prompt payment (15 days)

Street lighting—

184 100-watt series, \$18.00 per annum per light
5 1,200-c.p. enclosed arcs, \$60.00 per annum per arc
Burning schedule, series lights, sunset to 1:00 a.m., 5:00 a.m.
to sunrise; arc lights, sunset to sunrise

SPOONER (668)

International Lumber Company

Method of generation, steam

Number of consumers, 68

Daily operating period, 5:30 p.m. to midnight; 4:30 a.m. to 7:30
a.m.

Commercial lighting—

Meter rates:

15 cts. per kw-hr. for the first 20 kw-hrs.

10 cts. per kw-hr. for all over 20 kw-hrs.

Discount, 10% if bill is paid by the 12th of the month fol-
lowing

Street lighting—

7 arc lights

4 cluster lights

8 street tungstens. City pays \$82.50 per month

SPRINGFIELD (1,482)

Municipal Plant

Method of generation, steam

Number of consumers, 137

Daily operating period, from dusk till daylight, and on Wednes-
day forenoons for ironing

Commercial lighting and power—

Meter rates:

10 cts. per kw-hr.

Street lighting—

40 incandescent clusters

No charge to municipality

SPRING VALLEY (1,817)

Southern Minnesota Power Company

Method of generation, steam

Commercial lighting—

Flat rates:

“25 cts. to 75 cts.” (No more details given)

Street lighting—

23 ornamental posts

51 16-c.p. lamps

STAPLES (2,558)

Municipal Plant

Method of generation, steam

Yearly current sold, 170,339 kw-hrs.

Number of consumers, 470

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

First 100 kw-hrs., 10 cts. per kw-hr.

Next 100 kw-hrs., 9 cts. per kw-hr.

Next 100 kw-hrs., 8 cts. per kw-hr.

Next 100 kw-hrs., 7 cts. per kw-hr.

Next 100 kw-hrs., 6 cts. per kw-hr.

Each added kw-hr., 5 cts. per kw-hr.

Discount, 10% if bill is paid by 25th of month

Commercial power

Meter rates:

First 100 kw-hrs., 10 cts. per kw-hr.

Next 100 kw-hrs., 8 cts. per kw-hr.

Next 100 kw-hrs., 7 cts. per kw-hr.

Over 300 kw-hrs., 6 cts. per kw-hr.

Street lighting—

8 arc lights

52 carbons. City pays \$2,940.00 total per annum

Burning on a moonlight schedule

STILLWATER (10,198)

Consumers Power Company

Method of generation, water power and steam

Yearly current used, 2,017,755 kw-hrs.

Number of consumers, 1,500

Daily operating period, continuous

Commercial lighting rates—

Meter rates:

Kw-hrs.	Gross	Discount	Net
First 6 per month.....	15 cts. per kw-hr.		15 cts.
6 to 100 per month.....	11 cts. per kw-hr.	1 ct.	10 cts.
Next 100 per month....	10 cts. per kw-hr.	1 ct.	9 cts.
Next 300 per month....	9 cts. per kw-hr.	1 ct.	8 cts.
Next 500 per month....	8 cts. per kw-hr.	1 ct.	7 cts.

Business lighting rates

Meter rates:

	Gross	Discount	Net
3 kw-hrs. per 16-c.p. equivalent.	9 cts. per kw-hr.	1 ct.	8 cts.
4 kw-hrs. per 16-c.p. equivalent.	8 cts. per kw-hr.	1 ct.	7 cts.
5 to 11, per 16-c.p. equivalent..	7 cts. per kw-hr.	1 ct.	6 cts.
11 to 21, per 16-c.p. equivalent.	6 cts. per kw-hr.	1 ct.	5 cts.
21 or more per 16-c.p. equivalent	5 cts. per kw-hr.	1 ct.	4 cts.

Flat rates:

Window lighting:

40-watt lamp, 50 cts. per month per lamp burning from dusk till 10:30 p.m.

60-watt lamp, 65 cts. per month per lamp, same burning schedule

Sign lighting:

20 cts. per month per lamp for the first two years; 13 cts. per lamp after that. Burning schedule, dusk till 10:30 p.m. Signs furnished by company

Commercial power rates—

Applicable only when kw-hrs. consumed amount to more than monthly service charge, or minimum bill

For 1 hr. service per day per month, 26 days, 11 cts. per kw-hr.

For 2 hr. service per day per month, 26 days, 7.1 cts. per kw-hr.

For 3 hr. service per day per month, 26 days, 5.5 cts. per kw-hr.

For 4 hr. service per day per month, 26 days, 4.5 cts. per kw-hr.

For 5 hr. service per day per month, 26 days, 4.02 cts. per kw-hr.

For 6 hr. service per day per month, 26 days, 3.51 cts. per kw-hr.

For 7 hr. service per day per month, 26 days, 3.22 cts. per kw-hr.

For 8 hr. service per day per month, 26 days, 3.00 cts. per kw-hr.

For 9 hr. service per day per month, 26 days, 3.00 cts. per kw-hr.

For 10 hr. service per day per month, 26 days, 2.98 cts. per kw-hr.

Discount, 10%. To secure discount, all bills must be paid by the 10th of the following month

Street lighting

332 incandescents, 3.3-ampere, 25-c.p. series. Rate, \$12.00 per annum per lamp

41 6.6-ampere multiple arcs. Rate, \$57.50 per annum per arc

Lamps burn all night every night

THIEF RIVER FALLS (3,714)

Municipal Plant

Method of generation, water power and Diesel crude oil engine

Number of consumers, 800

Daily operating period, continuous

Commercial lighting—

Meter rates:

9 cts. per kw-hr.

10% discount for prompt payment

Commercial power-

Meter rates:

Up to	100 kw-hrs.,	6 cts. per kw-hr.
100 to	500 kw-hrs.,	5 cts. per kw-hr.
500 to	1,000 kw-hrs.,	4 cts. per kw-hr.
1,000 to	5,000 kw-hrs.,	3 cts. per kw-hr.
5,000 to	10,000 kw-hrs.,	2 cts. per kw-hr.
10% discount for prompt payment		

Street lighting

12 A. B. enclosed arcs

50 cluster lights with 2 100-watt tungsten lamps in each

74 ornamental lamp posts, each having 4 60-watt tungstens and
1 100-watt tungsten. Credit is given to the department at
4 cts. per kw-hr.

TRACY (1,870)

Municipal Plant

Method of generation, steam

Yearly generation, total of 200,000 kw-hrs.

Number of consumers, 350

Daily operating period, continuous

Commercial lighting and power

Meter rates:

Minimum monthly bill, 50 cts.

Meter rent, for light, 15 cts. per month

Meter rent, for power, 35 cts. per month

1 to 8 kw-hrs., 14 cts. per kw-hr.

9 to 18 kw-hrs., 13 cts. per kw-hr.

19 to 30 kw-hrs., 12 cts. per kw-hr.

31 to 45 kw-hrs., 11 cts. per kw-hr.

46 to 80 kw-hrs., 10 cts. per kw-hr.

81 to 125 kw-hrs., 9 cts. per kw-hr.

126 to 200 kw-hrs., 8 cts. per kw-hr.

200 and over kw-hrs., 7 cts. per kw-hr.

10% discount for prompt payment

Street lighting-

34 cluster lamps. Rate, 7 cts. per kw-hr.

Burning on a moonlight schedule

TWO HARBORS (4,990)

Municipal Plant

Method of generation, steam

Yearly output, 300,000 kw-hrs.

Number of consumers, 900

Daily operating period, continuous

Commercial lighting

Meter rates:

No minimum charge

8 cts. per kw-hr.

10% added if bill is not paid before the 25th of the month

Commercial power—

Meter rates:

No minimum charge

First 10 kw-hrs., 6 cts. per kw-hr.

Next 15 kw-hrs., 5 cts. per kw-hr.

Next 25 kw-hrs., 4 cts. per kw-hr.

Next 50 kw-hrs., 3 cts. per kw-hr.

Next 400 kw-hrs., 2½ cts. per kw-hr.

All over 500 kw-hrs., 2 cts. per kw-hr.

Street lighting—

83 lights, arcs, clusters, and 500-watt tungstens

No charge to city

VIRGINIA (10,473)

Municipal Plant

Method of generation, steam

Monthly generation, 118,000 kw-hrs.

Number of consumers, 1,900

Daily operating period, continuous

Commercial lighting—

Meter rates:

7 cts. per kw-hr.

10% discount on bills paid by 10th of month

Commercial power—

Meter rates:

5 cts. per kw-hr.

Discount same as above

Street lighting—

80 arc lights

159 ornamental standards, 5 lights each. City pays 7 cts. per kw-hr. straight

WADENA (1,820)

Municipal Plant

Method of generation, steam

Number of consumers, 300

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

25 cts. minimum monthly bill

10 cts. per kw-hr.

Flat rates:

50 cts. per light per month

Street lighting—

30 lights. (Report not clear; evidently some 4-light posts with 100-watt mazdas, and some arcs)

"City pays \$7.50 per month per arc lamp"

Burning on a moonlight schedule

WALKER (917)

Municipal Plant

Method of generation, steam

Number of consumers, 87

Daily operating period, dusk till daylight

Commercial lighting and power—

Meter rates:

Minimum monthly bill, 75 cts.

10 cts. per kw-hr.

Flat rates:

- 50 cts. per month for each 60-watt lamp
- 35 cts. per month for each 40-watt lamp
- 25 cts. per month for each 25-watt lamp

Street lighting—

- 10 carbon arcs. Rate, \$5.00 per month per arc
- 24 60-watt tungstens. Rate, 70 cts. per month per lamp
- These amounts are not paid, but credited to the plant
- Burning schedule, all night, moonlight schedule

WARREN (1,613)

Municipal Plant

Method of generation, steam

Number of consumers, 319

Daily operating period, continuous

Commercial lighting and power—

Meter rates:

- Minimum monthly bill, 85 cts.; meter rental, 10 cts.
- 1 to 200 kw-hrs., 10 cts. per kw-hr.
- 201 to 300 kw-hrs., 9 cts. per kw-hr.
- 301 to 400 kw-hrs., 8 cts. per kw-hr.
- 401 kw-hrs. and over and power, 7 cts. per kw-hr.
- No discount

Flat rates:

- 8-c.p. lamp to midnight, 40 cts. a month
- 16-c.p. lamp to midnight, 60 cts. a month
- 8-c.p. lamp all night, 70 cts. a month
- 16-c.p. lamp all night, \$1.00 a month

Street lighting—

- 31 5-light clusters
- 6 arc lights
- 38 64-c.p. brackets
- No charge to municipality
- Burning on a moonlight schedule

WELLS (1,755)

Municipal Plant

Method of generation, steam

Number of consumers, 285

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 50 cts.; meter rental, 25 cts.

11 cts. per kw-hr.

10% discount if bill is paid by 10th of month

Commercial power

Meter rates:

Minimum monthly bill same as above

10 cts. per kw-hr.

25% discount if bill is paid before 10th of the month

Street lighting—

50 tungstens. Meter rate, 11 cts. About \$100.00 a month

Burning schedule, dusk to midnight

WEST MINNEAPOLIS (3,022)

Minneapolis General Electric Company

Current purchased from the Minneapolis branch of the Consumers Power Company

Daily operating period, continuous

Street lighting

6 100-c.p. lamps. City pays \$2.46 per lamp per month

31 40-c.p. lamps. City pays \$1.50 per lamp per month

WHEATON (1,300)

Wheaton Electric Company

Method of generation, steam

Number of consumers, 225

Daily operating period, from dusk till midnight; from November 1 to March 1, the plant runs from 6:00 a.m. to daylight

Commercial lighting—

Meter rates:

Minimum monthly bill, \$1.00

15 cts. per kw-hr.

Discount, 15% if bill is paid by 15th of month

Street lighting—

5 arc lights

55 32-c.p. incandescents

City pays \$5.00 a month for each arc, and \$1.15 for each incandescent

Burning schedule, same as operating period, except when moonlight

WHITE BEAR (1,505)

Consumers Power Company

Current from dam at Apple River, Wisconsin

Total amount used in White Bear, 290,000 kw-hrs.

Number of consumers, 500 to 1,000, according to the season

Daily operating period, continuous

Residence lighting—

Meter rates:

Minimum monthly bill, \$1.00

13 cts. per kw-hr.

Discount of 1 ct. per kw-hr. if paid within 10 days from date of bill

Commercial lighting—

Meter rates:

Minimum monthly bill, same as above

First 100 kw-hrs., 11 cts. per kw-hr.

Next 100 kw-hrs., 10 cts. per kw-hr.

Next 300 kw-hrs., 9 cts. per kw-hr.

More than 500 kw-hrs., 8 cts. per kw-hr.

Discount same as above

Lake regions outside the village limits—

Meter rates:

Minimum charge same as above

Transient consumers (April to October inclusive), 19 cts.
per kw-hr.

Yearly consumers, 14 cts. per kw-hr.

Discount same as above

Commercial power—

Meter rates:

6½ cts. per kw-hr. down, "according to amount used"

Street lighting—

7 6.6-ampere enclosed alternating ares. Rate for ares, \$6.25
each a month

110 incandescents, 3.3-ampere, 40-watt mazda. Rate, \$1.33½
a month

Burning schedule, dusk to 1:00 a.m. and from 5:00 a.m. till
dawn

WILLMAR (4,135)

Municipal Plant

Method of generation, steam

Number of consumers, 850

Daily operating period, continuous

Commercial lighting—

Meter rates:

Minimum monthly bill, 50 cts.

10 cts. per kw-hr. with following discounts:

On bills of \$5.00, 5% discount

On bills of \$10.00, 10% discount

On bills of \$15.00, 15% discount

On bills of \$20.00, 20% discount

On bills of \$25.00, 25% discount

On bills of \$30.00, 30% discount

On bills over \$30.00, 30% discount

A penalty of 10% is added if bill is not paid by the 20th
of the following month

Commercial power—

Meter rates:

Minimum, same as above

7 cts. per kw-hr.

If current is used amounting to \$3.00 a month at a primary rate, a rate of 6 cts. is charged. If current consumed amounts to \$10.00 a month at the primary rate, a rate of 5 cts. is charged

Same penalty as above

Street lighting—

30 ornamental posts, 40- and 60-watt lamps

160 mazdas for residence portion

(There are more lights than this apparently, but the report is not quite clear)

City pays 7 cts. per kw-hr. with same discounts as above

WINNEBAGO (1,554)

Municipal Plant

Method of generation, steam

Number of consumers, 225

Daily operating period, dark to daylight

Commercial lighting

Meter rates:

Minimum monthly bill, 75 cts.

10 cts. per kw-hr.

Street lighting—

10 clusters

90 incandescents. City pays \$1,530.00 a year

WINONA (18,583)

Wisconsin Railway, Light and Power Company

Method of generation, water power and steam

Yearly current, 6,000,000 kw-hrs.

Number of consumers, 2,500

Daily operating period, continuous

Commercial power—

Meter rates:

Minimum monthly bill, less than 20 lights connected, 75 cts.;
more than 20 lights connected, \$1.00

- 0 to 50 kw-hrs., 11 cts. per kw-hr.
- 51 to 100 kw-hrs., 7 cts. per kw-hr.
- 101 to 500 kw-hrs., $5\frac{1}{2}$ cts. per kw-hr.
- 501 to 1,000 kw-hrs., 5 cts. per kw-hr.
- 1,001 to 2,000 kw-hrs., $4\frac{1}{2}$ cts. per kw-hr.
- Discount of 1 ct. per kw-hr. if paid before 10th of following month

Commercial power

Meter rates:

- Minimum monthly bill, motor service, 3-phase, not less than \$2.50; motor service per h.p. connected, 50 cts.; other rates same as above

Street lighting

- 175 7.5-ampere arcs
- 4 200-c.p. mazda lamps
- 24 80-c.p. mazda lamps. City pays \$68.00 per annum per arc and \$25.00 per annum per 80-watt mazda

WORTHINGTON (2,385)

Municipal Plant

Method of generation, steam

Number of consumers, 450

Daily operating period, continuous

Commercial lighting

Meter rates:

- Minimum monthly bill, \$1.00
- 1 to 50 kw-hrs., 10 cts. per kw-hr.
- 51 to 110 kw-hrs., 9 cts. per kw-hr.
- 111 to 185 kw-hrs., 8 cts. per kw-hr.
- 186 kw-hrs. and above, $7\frac{1}{2}$ cts. per kw-hr.
- Meter rental, 25 cts. per month
- Discount, 5% if paid within 5 days

Commercial power—

Meter rates:

- 6 cts. per kw-hr.
- Discount, same as above

Street lighting—

125 series mazda

33 ornamental posts, mazdas. City pays $7\frac{1}{2}$ cts. per kw-hr.
less maintenance

Lights burn all night

ZUMBROTA (1,138)

Consumers Power Company

Method of generation, water power and steam

Commercial lighting—

Meter rates:

10 cts. per kw-hr.

10% discount. (For prompt payment, presumably)

Commercial power—

5 cts. per kw-hr.

10% discount

Street lighting—

69 60-watt lamps. City pays \$1.00 each per month

Burning schedule, dark to midnight, except when moonlight

WATER RATES

ADA (1,432)

Municipal Plant

Source of supply, artesian well flowing into reservoir

Pumping, gas engine

Number of metered consumers, 10

Number of flat rate consumers, 240

Public service—

Number of hydrants, 20

Rental charge, \$40.00 per year for each

No other charges to municipality

Commercial service—

Meter rates:

20 cts. per 100 cu. ft. No discount

Flat rates:

Domestic use, per year..... \$5.00

Closets, each 3.00

Bathtubs, each 2.00

10-barrel tanks, per tank..... .25

ATKIN (1,638)

Municipal Plant

Source of supply, Mud River

Pumping, steam

Number of metered consumers, 148

Public service—

Number of hydrants, 35

Fire protection, per year, \$1,000.00

Commercial service—

5,000 to 10,000 gal., 40 cts. per 1,000 gal.

10,000 to 20,000 gal., 35 cts. per 1,000 gal.

20,000 to 50,000 gal., 30 cts. per 1,000 gal.

50,000 to 100,000 gal.,	25 cts. per 1,000 gal.
100,000 to 150,000 gal.,	20 cts. per 1,000 gal.
150,000 to 250,000 gal.,	15 cts. per 1,000 gal.
250,000 to 500,000 gal.,	12½ cts. per 1,000 gal.
500,000 to 1,000,000 gal.,	10 cts. per 1,000 gal.
Over 1,000,000 gal.,	8 cts. per 1,000 gal.
Under 5,000 gal.,	minimum charge, per quarter, \$2.00

Meter rental:

½- to ¾-inch, per month, 25 cts.

1- to 1¼-inch, per month, 30 cts.

Meters may be furnished by the consumer

ADRIAN (1,112)

Municipal Plant

Source of supply, well

Pumping, steam pump (capacity, 30,000 gal.)

Number of metered consumers, 13

Number of flat rate consumers, 99

Public service—

20 hydrants at \$46.25 each per year

Street sprinkling, \$50.00 per year

No other charges to the municipality

Commercial service—

Meter rates:

50 cts. per 1,000 gal.

Flat rates:

Residences, per year.....	\$5.00
Livery barns	18.00
Hotels	24.00

ALBANY (657)

Municipal Plant

Source of supply, well

Pumping, gasoline engine and electricity

Number of metered consumers, 7

Number of flat rate consumers, 46

Public service—

Number of hydrants, 13

Commercial service—

Meter rates:

40 cts. per 1,000 gal.

15 cts. per 1,000 gal. for users whose daily consumption exceeds 500 gal.

Flat rates:

Bank, per year.....	\$5.00
Bakeries	5.00
Brickwork, per 1,000.....	.05
Barbershop, first two chairs and basin.....	5.00
Each additional chair.....	2.00
Bath in private dwelling.....	free
Bath, public, first two tubs.....	5.00
Each additional tub.....	3.00
Blacksmith shop, two fires.....	5.00
Each additional fire	2.00
Boarding house	special
Churches	5.00
Fountains	5.00
Hotels	special
Halls	5.00
Lawn hose for sprinkling grounds, per faucet.....	3.00
Same in connection with house use.....	3.00
Same, each additional.....	1.25
Laundries	special
Meat market	5.00
Offices	5.00
Plastering, per 100 sq. yd.....	.25
Photograph galleries	5.00
Printing office	5.00
Residence, family use only.....	5.00
Railroad depot	special
Railroad tank	special
Stables, private, 3 stalls and buggy.....	5.00
Same in connection with residence.....	2.00
Stables, livery, per stall.....	special 16.00

Stables, hotel, per stall.....	special
Stores	\$5.00
Saloons	5.00
Sprinkling carts	special
Stone work, per cord.....	.15
Urinals for private dwelling.....	free
Urinals, public	3.00
Wash basin in private dwelling.....	free
Wash basin in hotel, each.....	2.00
Water closet for private dwelling.....	free
Water closet, public.....	5.00
Mills and factories	special
Water meter rates, per 1,000 gal.....	.40

Surface Pipes Only

Sprinkling lawns, one faucet.....	\$5.00
Each additional faucet.....	1.25
All other purposes, one-half regular rate	

ALBERT LEA (6,192)

Municipal Plant

Source of supply, artesian wells

Pumping, steam

Number of metered consumers, 1,075

No flat rate consumers

Public service—

Number of hydrants, 138

Rental charge, \$25.00

No charge for street sprinkling or fire protection

No other charges to municipality

Commercial service—

Meter rates:

First 15,000 cu. ft. per year, per 1,000 cu. ft. or fraction thereof, \$1.50

Next 15,000 cu. ft. per year, per 1,000 cu. ft. or fraction thereof, \$1.12½

All above 30,000 to 200,000 cu. ft. per year running through one meter or used on same premises, per 1,000 cu. ft., 60 cts.

200,000 to 300,000 cu. ft. per year running through one meter or used on same premises, per 1,000 cu. ft., 60 cts. straight

300,000 cu. ft. or more per year running through one meter or used on same premises, per 1,000 cu. ft., 53 cts. straight

No permits issued for less than \$5.00 except for building purposes. A semi-annual charge of \$2.50 is hereby established as the minimum rate for water used.

ALEXANDRIA (3,001)

Municipal Plant

Source of supply, well

Pumping, electricity

Number of flat rate consumers, 200

Public service—

36 hydrants at \$55.00 each per year

Street sprinkling, \$100.00 per year

No other charges to municipality

Board of Water Works pays city 4% per year on value of plant

Commercial service—

Flat rates:

Residences, per year.....	\$5.00
Bath	2.00
Closet	3.00
Lawns extra	

ANOKA (3,972)

Municipal Plant

Source of supply, artesian wells

Pumping, for domestic use, electrical centrifugal pump; for fire pressure, duplex comp. Barr pump

Number of metered consumers, 265

Public service—

Number of hydrants, 66

Hydrant rental per year, \$3,700.00

No other charges to municipality

Commercial service—

Meter rates:

First 5,000 gal., 20 cts. per 1,000

Next 5,000 gal., 15 cts. per 1,000

Over 10,000 gal., 8 cts. per 1,000

Meters read monthly. No discounts

Minimum rates, 50 cts. per month

Meter rental, 15 cts. per month

APPLETON (1,221)

Municipal Plant

Pumping, steam

Source of supply, deep well

Number of metered consumers, 127

Public service—

Number of hydrants, 26

Commercial service—

Meter rates:

30 cts. per 1,000 gal.

Minimum quarterly charge, 50 cts.; 10% added if bill is not paid by the 10th of the first month in the quarter

ATWATER (600)

Municipal Plant

Source of supply, seven wells

Pumping, gasoline engine

Number of metered consumers, 10

Number of flat rate consumers, 16

Public service—

Number of hydrants, 10

No charges to municipality

Commercial service—

Meter rates:

25 cts. per 1,000 gal.

Flat rates:

\$5.00 per year

No discounts

AURORA (1919)

Municipal Plant

Source of supply, two wells, 90 and 110 feet deep

Pumping, 90-foot well, No. 9 Cameron steam pump; 110-foot well, motor-driven, 3-stage centrifugal pump driven by a 35 h.p. 3-phase induction motor

Number of metered consumers, 5

Number of flat rate consumers, 202

Public service—

Number of hydrants, 26

Rental charge, per hydrant per year, \$36.00

Commercial service—

Meter rates:

1,000 to 10,000 gal., 25 cts. per 1,000 gal.

10,000 to 20,000 gal., 20 cts. per 1,000 gal.

20,000 to 30,000 gal., 19 cts. per 1,000 gal.

30,000 to 40,000 gal., 18 cts. per 1,000 gal.

40,000 to 50,000 gal., 17 cts. per 1,000 gal.

50,000 to 60,000 gal., 16 cts. per 1,000 gal.

60,000 gal. or more, 15 cts. per 1,000 gal.

Minimum charge on meter rate, 50 cts. per month

Schoolhouses and water supplied for construction work from said water-works system of said village, shall be charged therefor on such meter rates as above established.

Flat rates:

Hotels, per month..... \$5.00

Saloons, per month.....	\$3.00
Public bath houses, per month.....	3.00
Livery stables, per month.....	5.00
Boarding houses, per month.....	2.50
Meat markets, stores, and other places of mercantile business, per month	1.50
Restaurants, per month	1.50
Barber shops, per month.....	1.00
Residences, per month.....	1.00
Private barns, for each tap, per month.....	1.00
Fire hydrants, per month.....	3.00
Village hall, per month.....	7.50
Saloons in hotels or boarding houses each shall be charged separately	

Any person, firm, or corporation taking water from public hydrants furnished for that purpose, or from any party having water introduced into their premises and supplied with water from the water-works system of said village, shall pay therefor at the following table of flat rates, to-wit:

For each saloon or business house, per month.....	\$1.00
For each boarding house, per month.....	1.50
For each residence or family, per month.....	.50
For each cow or horse, per month.....	.10

AUSTIN (6,960)

Municipal Plant

Source of supply, springs and wells

Pumping, steam

Number of metered consumers, 1,000

Number of flat rate consumers, 201

Public service—

117 hydrants at \$10.00 per hydrant per year

Street sprinkling, \$500.00 per year

45 sewer flush tanks at \$40.00 each per year

Commercial service—

Meter rates:

Minimum, 800 cu. ft. or less, per quarter, \$1.25

In excess of 800 cu. ft., per quarter, an additional charge per 100 cu. ft. of 15 cts.

Discounts will be allowed as follows:

When 1,200 to 2,000 cu. ft. per quarter are used, 5%

When 2,000 to 3,500 cu. ft. per quarter are used, 10%

When 3,500 to 5,000 cu. ft. per quarter are used, 15%

When 5,000 to 7,000 cu. ft. per quarter are used, 20%

In excess of 7,000 cu. ft. per quarter, discount to be fixed by the council

Rates for all purposes that may be applied for, not named in the foregoing schedule, to be fixed by the superintendent

The rates are subject to the provision that any person taking water for any purpose, however small, must pay a minimum charge of \$5.00 per year

Flat rates:

Laying stone, per perch (mason's measurement)....	\$0.02
Laying brick, per 1,000 (mason's measurement)....	.10
Plastering, per 100 yd. (plasterer's measurement)...	.40
No permit issued for less than.....	1.00
Breweries	25.00
Bakeries, h.p. boiler, extra.....	8.00
Blacksmith shops.....\$3.00 to	6.00
Banks	6.00
Barber shops:	
First chair, per year.....	5.00
Second chair, per year.....	3.00
Each additional chair, per year.....	2.00
Baths:	
Private house, first bath, per year.....	3.00
Each additional bath, per year.....	1.00
Hotels and boarding houses, per year.....	6.00
Public, per year, first.....	8.00
Each additional	5.00
Hotels and boarding houses:	
For each room, less than 10, per year.....	1.50
Each additional room, over 10, per year.....	1.00
Carriage shops:	
Five persons or less, per year.....	5.00

Each additional person, per year.....	\$0.50
Extra for fires (see blacksmith shops)	
Churches, free, except for motors	
Dental offices, per year.....	5.00
Dye shops, per year.....	\$15.00 to 50.00
Dwellings:	
Each private dwelling occupied by one family, for 5 rooms or less, per year.....	5.00
Each private dwelling occupied by one family, for 7 rooms or less, per year.....	6.00
Each additional room, per year.....	.25
Each additional family, per year.....	4.00
Fountains, per season, not to exceed 5 months:	
1/16-inch orifice	8.00
1/8-inch orifice	15.00
3/16-inch orifice	30.00
1/2-inch orifice	50.00
3/4-inch orifice	100.00
Laundries, per year.....	\$10.00 and upwards
Gas engines (where tanks are used)	
7-h.p. or less, per year.....	5.00
Over 7-h.p., per year.....	10.00
Where the water connection is made with engine, by meter measurement	
Manufacturing (h.p. boiler extra)	
10 hands or less, per year.....	5.00
Each additional hand up to 20, per year.....	.50
Each additional hand beyond 20, per year.....	.25
Meat markets	6.00
Offices and sleeping rooms:	
First room, per year.....	3.00
Second room, per year.....	2.00
Each additional room, per year.....	1.00
(To be charged to landlord or lessee of lower floor)	
Printing offices (h.p. boiler extra), per year	
.....	\$6.00 and upwards
Photograph galleries, per year.....	8.00
Restaurants, per year.....	\$6.00 and upwards

Stables:

Private, for each horse or cow if water is in barn,
per year \$2.00

Private, for each horse or cow if water is not in
barn, per year 1.00

Livery and sale stables, for each stall, per year.... 2.00

Steam engines:

Per h.p. up to 6, per year..... 4.00

Per h.p. above 6, per year..... 3.00

Per h.p. above 10, per year..... 2.00

Schoolhouses:

Per scholar, per year..... .05

Saloons, per year..... 10.00

Saloons, and supplying one family, per year..... 14.00

Saloons in connection with restaurants, per year.... 14.00

Saloons in connection with stores or boarding houses,
per year 12.00

Soda fountains:

Tumbler washers, per month..... 5.00

Fountain jets, per season..... 10.00

Stores:

For sale of goods, except liquors, milk, or drugs,
and not over 25 ft. wide and one story high, per
year.....\$5.00 and over

Drug stores, per year..... 8.00

For each additional story used in connection with
store, per year 1.50

For each additional 10 ft. in width, per year..... 1.50

Urinals:

In private houses, stores, and offices, per year.... 2.00

In barber shops, saloons, hotels, and public places,
per year 5.00

Vegetable fountains, per season..... 4.00

Water closets:

In private houses, occupied, by one family, first,
per year 3.00

In private houses, each additional, per year..... 1.00

In stores, banks, and offices, per year..... 4.00

In barber shops, saloons, hotels, and public places 6.00

Water troughs, special or meter rates

Yard sprinklers:

For 60-ft. front or less, and for one building only,	
per season	\$3.00
For each additional 10 ft. or less, per season. . . . .	.30

BARNESVILLE (1,353)

Municipal Plant

Source of supply, deep wells

Pumping, steam

Number of metered consumers, 85

Public service—

Number of hydrants, 17

No charges to the municipality

Commercial service—

Minimum bill, \$5.00 per year

Meter rates:

First	1,000 gal., 50 cts. per 1,000
Next	4,000 gal., 40 cts. per 1,000
Next	5,000 gal., 35 cts. per 1,000
Next	5,000 gal., 30 cts. per 1,000
Next	10,000 gal., 28 cts. per 1,000
Next	10,000 gal., 25 cts. per 1,000
Next	10,000 gal., 20 cts. per 1,000
Next	50,000 gal., 15 cts. per 1,000
	100,000 gal. and over, 12 cts. per 1,000 gal.
	Meter rent, per month, 25 cts.

BAUDETTE (897)

Municipal Plant

Source of supply, Rainy River

Pumping, steam

Number of metered consumers, 57

Public service—

Number of hydrants, 12

Commercial service—

Meter rates:

10,000 gal. or less monthly, per 100 gal.....	\$0.05
10,000 to 20,000 gal. monthly, per 100 gal.....	.04
20,000 gal. or over monthly, per 100 gal.....	.03
For water sold from standpipes, hydrants, goose- necks or cocks, one barrel or less per day, per bar- rel .....	.05
1 to 5 barrels per day, per barrel.....	.04
5 to 10 barrels per day, per barrel.....	.03
100,000 gal. or over monthly, per 100 gal.....	.02
200,000 gal. or over monthly, per 100 gal.....	.01

BELLE PLAINE (1,204)

Municipal Plant

Source of supply, deep wells

Pumping, electricity

Number of metered consumers, 30

Number of flat rate consumers, 30 to 40

Public service—

Number of hydrants, 14

Commercial service—

Meter rates:

Less than 300 gal. per day, 5 cts. per 100 gal.

300 to 500 gal. per day, 4 cts. per 100 gal.

1,000 gal. or more per day, 3 cts. per 100 gal.

Flat rates:

Bakeries, not exceeding 2 barrels per day.....	\$5.00
Bakeries and restaurants combined.....	8.00
Banks	5.00
Barber shops, one chair.....	5.00
Each additional chair.....	2.00
Baths, private, one tub and wash basin.....	4.00
Baths, public, one tub.....	8.00
Each additional tub.....	4.00
Billiard halls	5.00

Blacksmith shops, one fire.....	\$3.00
Each additional fire	2.00
Blacksmith shops, hose for setting tires.....	2.00
Boarding houses, one faucet.....	8.00
Each additional faucet	1.00
Building purposes, no permit less than.....	1.00
Laying brick, per 1,000, mason's measurement....	.06
Laying stone, per cord, mason's measurement....	.10
Plastering, per 100 yd., plasterer's measurement..	.25
Churches, one faucet, but not parsonage.....	free
Dentists	6.00
Drug stores	6.00
Fountains, per season, not exceeding 6 months, 6 hours daily, 1/16-inch orifice.....	7.00
Hotels, special, rate to be fixed	
Laundries	10.00
Lawns and gardens, hose for sprinkling each lot, 50 x 142 ft.	3.00
Each additional lot or fraction thereof.....	1.00
Lumber yards	5.00
Meat markets, one faucet and use of hose.....	8.00
Motors	special
Offices and sleeping rooms.....	5.00
Photograph galleries	8.00
Public halls	5.00
Public schools	free
Printing offices, boiler extra.....	5.00
Restaurants	5.00
Residences, one family and one faucet.....	5.00
Each additional family using same faucet.....	4.00
Each additional faucet .....	.50
Saloons	9.00
Saloons, with restaurant connection.....	10.00
Shops and factories	special
Stables, private, for stock and washing buggies....	10.00
Stables, livery	10.00
Stables, feed and sale	10.00
Stores, for store use only.....	5.00
Steam engines	special
Urinals, public	5.00

Urinals, private	\$3.00
Wash basins, hotels and saloons, each.....	2.00
Water closets, private, each.....	3.00
Water closets, public, first one.....	5.00
Each additional one.....	3.00
Water closets, in banks, stores, and offices, private use	3.00
Water for beer pump.....	20.00

BEMIDJI (5,099)

Municipal Plant

Source of supply, wells

Pumping, suction pumps

Number of metered consumers, 370

Public service—

90 hydrants at \$30.00 each per year

No other charges to municipality

Commercial service—

For first 10,000 gal. or fraction, 30 cts. per 1,000 gal.

Additional 10,000 gal. or fraction, 25 cts. per 1,000 gal.

Additional 10,000 gal. or fraction, 20 cts. per 1,000 gal.

Additional 10,000 gal. or fraction, 18 cts. per 1,000 gal.

Additional 10,000 gal. or fraction, 16 cts. per 1,000 gal.

Additional 50,000 gal. or fraction, 15 cts. per 1,000 gal.

Additional 100,000 gal. or fraction, 13 cts. per 1,000 gal.

Additional 100,000 gal. or fraction, 11 cts. per 1,000 gal.

All over 300,000 gal., 9 cts. per 1,000 gal.

BENSON (1,677)

Municipal Plant

Source of supply, 2 8-inch wells, 166 ft. deep

Pumping, steam

Number of metered consumers, 163

Public service—

Number of hydrants, 30

Street sprinkling, \$600.00 per year, of which the city pays half

Commercial service

Minimum bill, \$4.00 per year

Meter rates:

- 1 to 3,000 cu. ft. in 6 months, 20 cts.
- 3,000 to 5,000 cu. ft. in 6 months, 18 cts.
- 5,000 to 10,000 cu. ft. in 6 months, 16 cts.
- 10,000 to 25,000 cu. ft. in 6 months, 12 cts.
- 25,000 cu. ft. and over, 10 cts.

BIWABIK (1,690)

Municipal Plant

Source of supply, mine drift. (See note below)

Pumping, steam

Number of metered consumers, 100

Number of flat rate consumers, 150

Public service—

27 hydrants at \$72.00 per hydrant per year

No other charges to the municipality

Commercial service—

Meter rates:

20 cts. per 1,000 gal.

Flat rates:

50 cts. per month

Note: Water is obtained under contract from the Biwabik Mining Company at the rate of \$100.00 per month for any amount necessary.

BLUE EARTH (2,319)

Municipal Plant

Source of supply, 2 deep wells

Pumping, steam

Number of metered consumers, 250

Public service—

60 hydrants at \$30.00 each per year

Street sprinkling, \$205.00 per year

Watering trough, \$200.00 per year

Commercial service—

Meter rates:

Up to 20,000 gal., 30 cts. per 1,000 gal.

All over 20,000 gal. at 20 cts. per 1,000 gal.

BRAINERD (8,526)

Municipal Plant

Source of supply, Mississippi River

Pumping, steam pump (average for 24 hours during 1913 was
1,437,378 gallons)

Number of metered consumers, 59

Number of flat rate consumers, 1,494

Public service—

105 hydrants, at a total annual rental of \$2,100.00

No other charges for sprinkling or other services made to the
municipality

Commercial service—

Meter rate:

40 cts. per 1,000 gal.

Flat rates:

4 rooms or less, per year..... \$7.00

5 rooms, per year..... 8.00

6 rooms, per year..... 9.00

7 rooms or more, per year..... 10.00

Bath rooms, per year..... 10.00

BRECKENRIDGE (1,840)

Municipal Plant

Source of supply, Red River of the North, Otter Tail River

Pumping, electric centrifugal pumps

Number of metered consumers, 29

Number of flat rate consumers, 412

Public service

48 hydrants, \$36.00 per hydrant per year

\$100.00 per year for drinking fountain

No other charges to the municipality

Commercial service—

Meter rates:

1,000 cu. ft. or less, 25 cts. per 100 cu. ft.

1,000 to 2,000 cu. ft., 20 cts. per 100 cu. ft.

2,000 to 4,000 cu. ft., 15 cts. per 100 cu. ft.

4,000 to 15,000 cu. ft., 10 cts. per 100 cu. ft.

15,000 to 20,000 cu. ft., 7 cts. per 100 cu. ft.

20,000 or more cu. ft., 3 cts. per 100 cu. ft.

Minimum charge, 75 cts. per month; \$1.00, including meter rent

Flat rates:

Water rentals, one tap..... \$10.00

Additional for 1 horse or cow..... 1.00

Each additional horse or cow..... .50

Bath, per year..... 3.00

Closet, per year..... 1.50

Barber shop, for tap..... 10.00

Barber shop, for first tub..... 6.00

Each additional tub..... 4.00

Fee for tapping main..... 5.00

Fee for carrying water, per year..... 6.00

BROWNTON (509)

Municipal Plant

Source of supply, well

Number of metered consumers, 25

Number of flat rate consumers, 75

Public service—

Number of hydrants, 15

Commercial service—

Meter rates:

30 cts. per 1,000 gal.

Flat rates:

\$5.00 per year for private homes

\$1.00 for 1 head of stock

50 cts. for each additional head

BROOTEN (562)

Municipal Plant

Pumping, gasoline engine

Number of metered consumers, 6

Number of flat rate consumers, 30

Public service—

Number of hydrants, 6

Street sprinkling, per year, \$30.00

No other charges to municipality

Commercial service—

Meter rate:

40 cts. per 1,000 barrels

Flat rate:

Lawn sprinkling only, \$5.00

BROWERVILLE (633)

Municipal Plant

Number of flat rate consumers, 12

No metered consumers

Public service—

Number of hydrants, 10

No charges to municipality

Commercial service—

Flat rates:

All dwellings, \$1.00 per month

BUHL (1,005)

Municipal Plant

Source of supply, 1 shaft well, 150 ft. deep; 1 drilled well, 302 ft. deep

Pumping, electricity

Number of flat rate consumers, 170

Public service—

21 fire hydrants, rental per quarter, \$490.00

No charges for sprinkling or other service made to the municipality

Commercial service—

Flat rates:

For use in private family, per quarter.....	\$1.50
For boarding houses, 10 rooms or less, per quarter..	2.50
Each additional room .....	.75
Hotels	6.00
Saloons	4.50
Banks	2.25
Bakery	4.50
Billiard hall	2.25
Butcher shop	2.25
Laundry	6.00
Photograph gallery	3.00
Restaurant	4.50
Stores, shops not herein specified.....	2.25
Baths, public or private, not in barber shops.....	.75
Barber shop (1 chair).....	1.50
Each additional chair .....	.75
Baths in barber shop, each.....	3.00
Watering horses, public or private.....	.75
Livery stables, boarding, 6 horses or less.....	4.50
Each additional horse .....	.50
Self-closing urinals	1.00
Water closets	1.25
Wash basins, each.....	.75
Use in Finn bath houses.....	1.50
For use in operating exploring drills, per month....	30.00
For use in plastering, per sq. yd.....	.04

For use in laying stone, per perch.....	\$0.07
For use in sprinkling sidewalks and to center of street, per quarter .....	.50

CALEDONIA (1,372)

Municipal Plant

Source of supply, well	
Pumping, steam	
Number of metered consumers, 223	
Public service—	
Number of hydrants, 20	
Commercial service—	
40 cts. per 100 cu. ft.	

CAMBRIDGE (900)

Municipal Plant

Source of supply, well, 140 ft. deep	
Pumping, electric power	
Number of metered consumers, 125	
Number of flat rate consumers, 4	
Public service—	
Number of hydrants, 15	
No charge to municipality	

Commercial service—

Meter rates:

First 10,000 gal., 40 cts. per 1,000	
Every additional 10,000 gal., 35 cts. per 1,000	
No minimum rate	

Flat rates:

One faucet for culinary and drinking purposes, per year	\$5.00
Bath tub, per year.....	2.00
Closet, per year.....	1.50
Lawn sprinkling, per season.....	3.00
No discounts; 10% penalty for late payment	

CANBY (1,528)

Municipal Plant

Source of supply, wells

Pumping, electricity and gasoline engines

Number of metered consumers, 140

No flat rate consumers

Public service—

Number of hydrants, 35

No charges to municipality

Commercial service—

Meter rates:

\$1.50 per 1,000 cu. ft.

No discounts

CANNON FALLS (1,385)

Municipal Plant

Source of supply, 6-in. artesian well

Pumping, gasoline engine with Gould triplex pump

Number of metered consumers, 53

Public service—

Number of hydrants, 17

No charges to municipality for public services

Commercial service—

Minimum monthly bill, 30 cts.

Less than 1,000 cu. ft., 30 cts. per 100 cu. ft.

1,000 to 2,000 cu. ft., 22 cts. per 100 cu. ft.

2,000 to 4,000 cu. ft., 15 cts. per 100 cu. ft.

4,000 to 15,000 cu. ft., 11 cts. per 100 cu. ft.

15,000 cu. ft. and over, 10 cts. per 100 cu. ft.

It is provided that the charge for water at the above rates shall in no case exceed an amount equal to the charge for the minimum quantity at the next lower rate.

CASS LAKE (2,011)

Cass Water, Light and Power Company

Source of supply, wells

Pumping, steam

Number of flat rate consumers, 150

Public service—

Number of hydrants, 20

\$83.33 per hydrant per year

Commercial service—

“We have no set flat rates on water and have to go by the amount of water used, openings, etc.; hence cannot supply you with rates.” (Statement of manager of C. W., Lt. & P. Co.)

CHATFIELD (1,228)

Municipal Plant

Source of supply, reservoir

Pumping, Cook steam pump

Number of flat rate consumers, 200

Public service—

Number of hydrants, 34

Commercial service—

Flat rates:

Family, per year.....	\$5.00
Bath and closet extra, per year.....	5.00

CHISHOLM (7,684)

Municipal Plant

Source of supply, mines

Pumping, steam and electricity

Number of flat rate consumers, 1,200

Public service—

Number of hydrants, 100

No charges to municipality

Commercial service—

Flat rates:

Hotels, per year.....	\$48.00
Boarding houses, per year.....	36.00
Saloons, per year.....	30.00
Steam laundry, per year.....	120.00
Hand laundry, per year.....	36.00
Barber shop, per year.....	12.00
Residence, per year.....	6.00
\$1.00 additional for each bath tub and \$1.00 additional for each water closet	
Public bath house, per tub, per year.....	12.00
Lodge rooms, per year.....	6.00
Livery stables, per year.....	18.00
For each additional horse kept therein, per year..	2.00
Private barns, for each horse or cow, per year.....	2.00
Lawn sprinkler, 10 cts. for each lineal front foot	
Banks, meat markets, stores, and other places of business, per year.....	6.00
Saloons in hotels or boarding houses, additional from house	
Restaurants, per year.....	18.00
Fountain, per year.....	12.00

CLARA CITY (587)

Municipal Plant

Source of supply, well

Pumping, gasoline engine and single-cylinder pump

Number of flat rate consumers, 30

Public service

Number of hydrants, 15

Commercial service

Flat rates:

Baths in dwelling, per year.....	\$2.50
Blacksmith shop, one fire, per year.....	2.50
Each additional fire, per year.....	1.00
Churches, per year	2.50

Dentist's office, per year.....	\$4.00
Dwellings, 6 rooms or less, per year.....	5.00
Each additional room, per year.....	.25
Meat markets, per year.....	5.00
Offices, single, per year.....	2.00
Photograph galleries, per year.....	3.00
Stables, private, each cow or horse, per year.....	1.00
Saloons, per year	8.00
Urinals, private, per year.....	1.00
Urinals, public, or barber shops, per year.....	3.00
Wash bowls, per year.....	1.00
Sprinkling, per 50-ft. front, per year.....	.75
Manufactories, mill, lumber yards, etc., special rates fixed by village council	

CLARKFIELD (603)

Municipal Plant

Source of supply, tubular well

Pumping, gasoline engine to elevated tank

Number of metered consumers, 6

Public service—

Number of hydrants, 4

Commercial service—

Meter rates:

50 cts. per 1,000 gal.

CLOQUET (7,031)

Municipal Plant

Source of supply, springs

Pumping, electricity

Number of metered consumers, 770

Public service—

Number of hydrants, 105

No charges of any kind made to the municipality

Commercial service—

Meter rates:

First	1,000 gal. or fraction thereof, 50 cts. per 1,000 gal.
Next	4,000 gal. or fraction thereof, 40 cts. per 1,000 gal.
Second	5,000 gal. or fraction thereof, 35 cts. per 1,000 gal.
Second	10,000 gal. or fraction thereof, 30 cts. per 1,000 gal.
Third	10,000 gal. or fraction thereof, 28 cts. per 1,000 gal.
Fourth	10,000 gal. or fraction thereof, 25 cts. per 1,000 gal.
Fifth	10,000 gal. or fraction thereof, 20 cts. per 1,000 gal.
Second	50,000 gal. or fraction thereof, 15 cts. per 1,000 gal.
Second	100,000 gal. or fraction thereof, 12 cts. per 1,000 gal.
Third	100,000 gal. or fraction thereof, 10 cts. per 1,000 gal.
Fourth	100,000 gal. or fraction thereof, 9 cts. per 1,000 gal.

Special rates:

Water used for building purposes, cement, tile or artificial sidewalks, 250 sq. ft. or less.....	\$0.20
All over 250 sq. ft., per 100 sq. ft.....	.07
Brick work, per 1,000.....	.05
Stone work, per 100 cu. ft.....	.10
Plastering, per 100 sq. yd. or less.....	.20
Concrete, per 50 cu. yd. or less.....	.50
Each additional cu. yd.....	.01
Provided that no water shall be supplied for any of the above named purposes for less than....	1.50
Settling trenches, each 100 lineal ft.....	1.50
Flushing sewers, per 100 lineal ft. up to 8 in. in size	1.00
Flushing sewers, per 100 lineal ft. in excess of 8 in. in size	2.00

When water is supplied by two or more meters to one consumer or to two or more premises owned by one person, firm, or corporation, the readings will not be combined, but a bill will be rendered for the whole amount of water used as registered by each meter separately according to the regular meter rates provided in this ordinance.

COLD SPRING (1594)

Municipal Plant

Source of supply, springs

Pumping, gasoline engine to tank 125 ft. high

Number of metered consumers, 25

No flat rate consumers

Public service—

Number of hydrants, 17

Commercial service—

Minimum bill, 50 cts. per month

Meter rates:

10 cts. per 1,000 cu. ft.

COLERAINE (1,613)

Oliver Iron Mining Company

Source of supply, water veins and underground mining drifts

Pumping, steam pumps at the bottom of the shafts, about 190 ft. deep

Number of flat rate consumers, 150

Public service—

Number of hydrants for fire, 39

Number of hydrants for public service hydrants, 13

Rental, per year, per hydrant, \$60.00

No charge for street sprinkling

Faucets and fixtures in city hall, per year, \$60.00

Commercial service—

Flat rates:

Dwelling, 1 faucet, per year.....	\$5.00
Additional faucets, each, per year.....	.50
Public bath, 1 tub, per year.....	8.00
Additional tub, each, per year.....	3.00
Private bath, each, per year.....	3.00
Water closets, public, each, per year.....	5.00
Water closets, private, each, per year.....	3.00
Urinals, each, per year.....	3.00
Barber shop, 1 chair, per year.....	4.00
Additional chairs, per year.....	2.00
Saloon, per year	10.00

Boarding house, 1 faucet, per year.....	\$10.00
Additional faucets, each, per year.....	1.00
Offices, per year	3.00
Public stables, per head, per year.....	2.00
Private stables, each, per year.....	2.00
Sleeping rooms, per occupant, per year.....	1.50
Sprinkler, yard, per year.....	3.00
Sprinkler, street, per year.....	1.50
Dry goods, hardware, jewelry stores, each, per year.	3.00
Grocery, meat market, drug store, per year.....	4.00
Blacksmith shop, per year.....	2.00
Soda fountain, per year.....	5.00
Bakery, per year.....	5.00
Laundry, per year.....	20.00
Dentist, per year.....	4.00
Billiard hall, per year.....	3.00
Washing carriages, each, per year.....	.50

CROOKSTON (7,559)

Crookston Water Works, Power and Light Company

Source of supply, artesian wells and the Red Lake River

Number of metered consumers, 800

Public service

98 hydrants at \$80.00 and \$100.00 per year each

Street sprinkling, 10 cts. per 1,000 gal.

City hall, sewer and street flushing water free

Commercial service—

Meter rates:

First 1,000 gal. or fraction thereof, 50 cts.

Next 4,000 gal. or fraction thereof, 40 cts. per 1,000 gal.

Second 5,000 gal. or fraction thereof, 35 cts. per 1,000 gal.

Second 10,000 gal. or fraction thereof, 30 cts. per 1,000 gal.

Third 10,000 gal. or fraction thereof, 28 cts. per 1,000 gal.

Fourth 10,000 gal. or fraction thereof, 25 cts. per 1,000 gal.

Fifth 10,000 gal. or fraction thereof, 20 cts. per 1,000 gal.

Second 50,000 gal. or fraction thereof, 15 cts. per 1,000 gal.

Second 100,000 gal. or fraction thereof, 12 cts. per 1,000 gal.

Third 100,000 gal. or fraction thereof, 10 cts. per 1,000 gal.

Fourth 100,000 gal. or fraction thereof, 9 cts. per 1,000 gal.

Fifth 100,000 gal. or fraction thereof, 8 cts. per 1,000 gal.

DELANO (1,031)

Municipal Plant

Pumping, steam

Number of metered consumers, 135

Public service—

Number of hydrants, 28

Commercial service—

Minimum bill, 25 cts.

Meter rates:

20 cts. per 1,000 gal.

No discounts allowed

DETROIT (2,807)

Municipal Plant

Source of supply, Detroit Lake

Pumping, two electrically driven pumps

Number of metered consumers, 4

Number of flat rate consumers, 185

Public service—

Number of hydrants, 42

Rental charge, per hydrant, per year, \$40.00

No charge for water for street sprinkling or fire protection

Commercial service—

Meter rates:

1,200 cu. ft. or less, 40 cts. per 100 cu. ft.

1,200 cu. ft. to 2,000 cu. ft., 30 cts. per 100 cu. ft.

2,000 cu. ft. to 4,000 cu. ft., 20 cts. per 100 cu. ft.

4,000 cu. ft. to 12,000 cu. ft., 15 cts. per 100 cu. ft.

12,000 cu. ft. to 15,000 cu. ft., 11 cts. per 100 cu. ft.

15,000 cu. ft. to 20,000 cu. ft., 7 cts. per 100 cu. ft.

In excess of 20,000 cu. ft., 5 cts. per 100 cu. ft.

Payments for all water used on a flat rate must be made in advance and on or before the 1st day of July of each year
Hours for sprinkling, 6:00 to 8:00 a.m. and 5:00 to 9:00 p.m.

Flat rates:

Baths, private, 3 or more in family.....	\$3.00
Baths, private, less than 3 in family.....	2.00
Baths, public	5.00
Barber shop, first chair and basin.....	4.00
Each additional chair	2.00
Barns	special
Closet, private, 3 or more in family.....	3.00
Less than 3 in family.....	2.00
Closet, public	5.00
Dentist, chair	5.00
Foot tub	1.00
Faucet, 1 connection	special
Garage, wash rack.....	25.00
Livery stable	special
Lavatories, private	1.00
Lavatories, public	2.00
Lawn, 50 ft.....	5.00
Each additional 25 ft.....	1.00
Photograph gallery	3.00
Steam plant for heating.....	5.00
Steam plant for power.....	15.00
Set tub	1.00
Sink	1.00
Soda fountain	special
Saloon, beer pump.....	10.00
Urinal, self-closing	1.00
Urinal, public, continuous.....	5.00

DULUTH (78,466)

Municipal Plant

Source of supply, Lake Superior

Pumping, centrifugal pumps

Number of metered consumers, 7,000

Number of flat rate consumers, 3,000

Public service—

987 hydrants at \$50.00 each per year

Street sprinkling, street washing, fountains and flushing sewers
at regular meter rates

Commercial service—

Meter rates:

First 10,000 cu. ft., 15 cts. per 100 cu. ft.

Next 10,000 cu. ft., 12 cts. per 100 cu. ft.

All over, 8 cts. per 100 cu. ft.

Minimum bill, 50 cts. per month

For water used for elevators, motors, swimming pools, and
for cooling and refrigerating machinery:

First 1,000 cu. ft., 15 cts. per 100 cu. ft.

Next 1,000 cu. ft., 12 cts. per 100 cu. ft.

All over, 8 cts. per 100 cu. ft.

Minimum bill, 50 cts.

Service separately metered

Private skating rinks, 10 cts. per 100 cu. ft., based on excess
registration

Public skating rinks, 8 cts. per 100 cu. ft.

For lawn sprinkling, 6 cts. per 100 cu. ft.; to be used only
between 6:00 p.m. and 6:00 a.m., months of June, July,
August, and September

Leakages and bleeders, 8 cts. per 100 cu. ft.

Flat rates:

Private fire protection services, ready-to-serve charge:

2-in. connection, per month..... \$2.00

3-in. connection, per month..... 3.00

4-in. connection, per month..... 4.00

5-in. connection, per month..... 5.00

6-in. connection, per month..... 6.00

8-in. connection, per month..... 8.00

No charge for water actually used in extinguishing fires

For turning off water services, no charge

For turning on water services, 50 cts.

EAST GRAND FORKS (2,533)

Municipal Plant

Source of supply, Red River

Pumping, steam

Number of metered consumers, 250

Public service—

Number of hydrants, 68

Commercial service—

Meter rates:

Gallons	Amount	Gallons	Amount
1,000.....	\$0.65	26,000.....	\$11.15
2,000.....	1.30	27,000.....	11.50
3,000.....	1.80	28,000.....	11.85
4,000.....	2.30	29,000.....	12.20
5,000.....	2.80	30,000.....	12.55
6,000.....	3.25	31,000.....	12.85
7,000.....	3.70	32,000.....	13.15
8,000.....	4.15	33,000.....	13.45
9,000.....	4.60	34,000.....	13.75
10,000.....	5.05	35,000.....	14.05
11,000.....	5.45	36,000.....	14.35
12,000.....	5.85	37,000.....	14.65
13,000.....	6.25	38,000.....	14.95
14,000.....	6.65	39,000.....	15.25
15,000.....	7.05	40,000.....	15.55
16,000.....	7.45	41,000.....	15.80
17,000.....	7.85	42,000.....	16.05
18,000.....	8.25	43,000.....	16.30
19,000.....	8.65	44,000.....	16.55
20,000.....	9.05	45,000.....	16.80
21,000.....	9.40	46,000.....	17.05
22,000.....	9.75	47,000.....	17.30
23,000.....	10.10	48,000.....	17.55
24,000.....	10.45	49,000.....	17.80
25,000.....	10.80	50,000.....	18.05

For all quantities more than 50,000 gal., add 20 cts. for each additional 1,000 gal. or fraction thereof, to the last amount above stated

A fraction of 1,000 gal. is charged as 1,000 gal.

ELBOW LAKE (776)

Municipal Plant

Source of supply, 8-in. well

Pumping, steam and gasoline engines

Number of metered consumers, 96

Number of flat rate consumers, 93

Public service—

Number of hydrants, 22

No charges for public service

Commercial service—

Minimum bill, \$5.00 per year

Meter rates:

Less than 1,000 gal. per day, 15 cts. per 1,000 gal.

1,000 and less than 2,000 gal. per day, 13 cts. per 1,000 gal.

2,000 and less than 4,000 gal. per day, 11 cts. per 1,000 gal.

4,000 and less than 7,000 gal. per day, 10 cts. per 1,000 gal.

7,000 and less than 10,000 gal. per day, 9 cts. per 1,000 gal.

10,000 and less than 14,000 gal. per day, 8 cts. per 1,000 gal.

14,000 and less than 18,000 gal. per day, 7 cts. per 1,000 gal.

All over 18,000 gal. per day, 6 cts. per 1,000 gal.

Consumer furnishes the meter

Flat rates:

Bakery, per barrel flour used per day, per year..... \$3.00
(None less than \$5.00 per year)

Banks, stores, and offices, per year..... 5.00

Barber shops, first chair, per year..... 3.00

Each additional chair, per year..... 2.00

Bath tubs, private, per year..... 2.00

Bath tubs, public, per year..... 6.00

Each additional, per year..... 2.00

Blacksmith shops, per year..... 5.00

Billiard halls, per year..... 5.00

Breweries, per year 30.00

Building purposes, per barrel lime, per year..... .05

Yard sprinkling, lot 50 x 124 ft., per season..... 1.50

Each additional front foot, per season..... .02

Fountains, 1/16-inch jets, 6 hours per day, per season 8.00

Hotels and boarding houses, each room less than 10, per year	\$1.00
Each additional room, per year.....	.50
Laundries, machine shops, public halls.....	special
Printing offices, boilers extra, per year.....	5.00
Pop factories, per year	10.00
Produce stores, per year.....	8.00
Saloons, per year	8.00
Stables, private, 1 horse or cow, per year.....	1.00
Each additional horse or cow, washing buggies in- cluded, per year .....	.50
Stables, livery, for 8 horses or less, per year.....	8.00
Each additional head, per year.....	.50
Washing buggies, per year.....	6.00
Steam engine	special
Water closets, private, per year.....	2.00
Water closets, hotels, saloons, or public places, per year	5.00
Photograph galleries, per year.....	5.00
Filling cisterns, per year.....	special

ELLSWORTH (536)

Municipal Plant

Source of supply, well

Pumping, electricity with auxiliary gas engine in case of failure ;
pumping into cement cistern, gas engine pumping into pressure
tank

Number of metered consumers, 14

Number of flat rate consumers, 18

Public service—

Number of hydrants, 9

No charge for water for sprinkling or rental of hydrants

Commercial service—

Minimum bill, 75 cts.

Meter rate:

75 cts. per 100 cu. ft.

Flat rate:

75 cts. per month

No discounts

ELMORE (795)

Municipal Plant

Source of supply, 6-in. well, 115 ft. deep

Pumping, gasoline engine

Number of flat rate consumers, 75

Public service—

Number of hydrants, 16

Commercial service—

Flat rates:

Building purposes:

Laying stone, per perch (mason's measurement).	\$0.02
Laying brick, per 1,000 (mason's measurement) ..	.10
Plastering, per 100 yd. (plasterer's measurement)	.40
Bakeries, per year, h.p. boilers extra.....	6.00
Blacksmith shops, 2 fires or less, with gasoline engine in connection, per year.....	8.00
Each additional fire over 2.....	1.00
Blacksmith shop without engine.....	5.00
Banks, per year.....	4.00
Barber shops, first chair, per year.....	3.00
Second chair, per year.....	1.00
Each additional chair, per year.....	1.00
Baths, private houses, first bath, per year.....	1.00
Each additional bath, per year.....	1.00
Hotels and boarding houses, per year.....	6.00
Public, per year, first.....	8.00
Each barber shop bath.....	3.00
Hotels and boarding houses, per year.....	10.00
Carriage shops, 5 persons or less, per year.....	5.00
Each additional person, per year.....	.50
Public hall for lodges, etc., per year.....	2.00
Extra for fires (see blacksmith shops)	
Churches, free except for motors	

Dental offices, per year.....	\$4.00
Dye shops, per year.....	\$15.00 to 50.00
Dwellings, each, per year.....	4.00
Drug stores, per year.....	4.00
Fountains, per season, not to exceed 5 months, 6 hours per day, 1/16-inch orifice.....	8.00
1/4-inch orifice	15.00
3/8 16-inch orifice	30.00
1/2-inch orifice	50.00
3/4-inch orifice	100.00
Laundries, per year.....	\$10.00 and upward
Gas engine, where tanks are used, 7 h.p. or less, per year	5.00
Over 7 h.p., per year.....	10.00
Where water connection is made with engine by meter measurement	
Manufacturing, h.p. boilers extra:	
10 hands or less, per year.....	5.00
Each additional hand up to 20, per year.....	.50
Each additional hand beyond 20, per year.....	.25
Meat markets	6.00
Offices and sleeping rooms:	
First room, per year.....	2.00
Second room, per year.....	1.00
Each additional room, per year.....	1.00
(To be charged to landlord or lessee of lower floor)	
Printing offices, h.p. boilers, extra, per year	\$3.00 and upward
Photograph galleries, per year.....	6.00
Restaurants, per year.....	\$6.00 and upward
Supplying one family in connection with restau- rant, per year	8.00
In connection with store or boarding house, per year	6.00
Saloons, 1 tap, per year.....	6.00
Stables, private, per head of stock kept per year, each .....	.50
Livery and sale stables, per year.....	10.00

Steam engines, per h.p. up to 6, per year.....	\$4.00
Per h.p. above 6, per year.....	3.00
Per h.p. above 10, per year.....	2.00
Schoolhouses, per year	2.00
Stores, for sale of goods and not over 25 ft. wide and one story high, per year.....	\$4.00 and over
Urinals, in private houses, stores, and offices, per year	2.00
In barber shops, hotels, and public places, per year	5.00
Vegetable fountains, per season.....	4.00
Water closets, in private houses, occupied by one family, first, per year.....	2.00
In private houses, each additional, per year.....	.50
In stores, banks, and offices, per year.....	3.00
In barber shops, hotels, and public places.....	5.00
Water troughs, special or meter rates	
Yard sprinklers, for 60-ft. front or less and for one building only, per season.....	3.00
For each additional 10 ft. or less, per season.....	.30
Building, water by the tank.....	.25

EVELETH (7,036)

Municipal Plant

Source of supply, St. Mary's Lake

Pumping, triple expansion steam pump

Number of metered consumers, 30

Number of flat rate consumers, 1,250

Public service

65 hydrants at \$50.00 each per year

Municipality charged as follows:

All water used in its public buildings, \$30.00 per year

Auditorium, \$30.00 per year

Library, \$30.00 per year

Parks, \$150.00 per year

Sanitary drinking fountains, 4 at \$90.00 each, \$360.00 per
year

Fire stations, each, per year, \$50.00

Commercial service—

Flat rates:

Hotels, from \$30.00 to \$150.00, including bath tubs and water closets, according to the number of persons accommodated

Boarding houses, from \$15.00 to \$36.00, including bath tubs and water closets, according to the number of persons accommodated

Lodge rooms, including bath tubs and water closets, \$8.00

Steam laundries, from \$50.00 to \$100.00, according to capacity

Hand laundries	\$30.00
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Barber shops	10.00
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Residents	6.00
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Tenements or flats, per family.....	6.00
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Private water closets.....	1.00
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Public water closets	5.00
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Private bath tub	1.00
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Public bath tub	5.00
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Livery stables, \$1.00 for each horse and \$1.00 for each carriage or buggy, but not to exceed \$50.00 in any one year

Private or public barns, \$1.00 for each horse, but not to exceed \$50.00 in any one year

Banks	4.00
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Saloons, including water closets.....	20.00
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Jewelry stores	4.00
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Clothing stores	4.00
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Dry goods stores	4.00
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Millinery stores	4.00
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Tailor shops	4.00
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Shoe shops	2.00
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Hardware stores	4.00
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Harness shops	4.00
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Grocery stores	8.00
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Meat markets	8.00
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Photograph galleries	12.00
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Pop factories	18.00
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Public bath houses, from \$24.00 to \$50.00, according to size	
Printing offices	\$8.00
Restaurants, from \$15.00 to \$75.00, according to the number accommodated	
Drug stores	8.00
Confectionery stores, without a fountain.....	4.00
With a fountain	8.00
Hospitals	40.00
Doctor's offices	6.00
Dentist's offices	6.00
Law offices, etc., for each occupant.....	1.00
Steam engines, 25 cts. per h.p.	
Factories for 10 persons and less.....	4.00
For each additional person.....	.25
Persons using water for building purposes shall pay the following rates:	
For each 1,000 bricks laid.....	.10
For 100 sq. yd. of plastering.....	.25
Stone walls, per cord of stone in wall.....	.10

Meter rates:

- 150,000 gal. and less per quarter, 15 cts. per 1,000 gal.
- 150,000 gal. to 1,000,000 gal. per quarter, 12½ cts. per 1,000 gal.
- Over 1,000,000 gal. per quarter, 10 cts. per 1,000 gal., provided, however, that the minimum rate per quarter for each meter shall be the sum of \$1.00

EXCELSIOR (1,015)

Municipal Plant

Source of supply, Lake Minnetonka

Pumping, electric motor

Public service

Number of hydrants being installed, 25 to 30

At the time of this statement this plant was in process of construction

FAIRFAX (815)

Municipal Plant

Source of supply, well

Pumping, electricity

Public service—

Number of hydrants, 15

No charge to the municipality

Commercial service—

Meter rate:

5 cts. per 100 gal.

Few parties using city water

FAIRMONT (2,958)

Municipal Plant

Source of supply, lake

Pumping, electrically driven centrifugal pumps

Number of metered consumers, 200

Public service—

51 hydrants at \$40.00 each per year

Commercial service—

Rates not given

FARIBAULT (9,001)

Municipal Plant

Source of supply, artesian and shallow wells

Pumping, steam

Number of metered consumers, 784

Public service—

Number of hydrants, 119

No charges to municipality

Commercial service—

Meter rates:

5,000 cu. ft. or less per month, 30 cts. per 100 cu. ft.

5,000 cu. ft. to 15,000 cu. ft. per month, 20 cts. per 100 cu. ft.

15,000 cu. ft. to 30,000 cu. ft. per month, 10 cts. per 100 cu. ft.

Above 30,000 cu. ft. per month, $7\frac{1}{2}$ cts. per 100 cu. ft.

No consumer to be charged an amount exceeding the minimum charge under the next lower rate

FARMINGTON (1,024)

Municipal Plant

Source of supply, 5 drive wells with 6-in. point

Pumping, gasoline engine

Number of flat rate consumers, 48

Public service—

Number of hydrants, 20

Commercial service—

Flat rates:

Residences, per month.....	\$0.50
Hotels, restaurants, livery barns, etc., per month....	1.00

FERGUS FALLS (6,887)

Municipal Plant

Source of supply, Red River

Number of flat rate consumers, 875

No metered consumers

Public service

87 hydrants at \$50.00 each per year

Commercial service—

Flat rates:

Faucet in kitchen	\$6.00
Bath	3.00
Closet	3.00
Sprinkling	3.00

FERTILE (614)

Municipal Plant

Source of supply, artesian well

Pumping, gasoline engine

Number of flat rate consumers, 74

Public service—

Number of hydrants, 18

No charges to municipality

Commercial service—

Flat rates:

Livery barns, per year.....	\$24.00
Hotels, one faucet, per year.....	15.00
Each additional faucet, per year.....	2.50
Residences without cisterns, per year.....	6.00
Residences with cisterns, per year.....	5.00
Barber shops, one chair, per year.....	6.00
Each additional chair, per year.....	2.00
Restaurants, per year.....	10.00
Drug stores, butcher shops, bakeries, per year.....	8.00
Banks and stores, per year.....	6.00
Fountains, 6 hours per day or less:	
1/16-in. jet, per season.....	5.00
1/8-in. jet, per season.....	10.00
Horse or cow, per year.....	1.50
One horse and washing carriages, per year.....	3.00
Halls, laundries, lumber yards, manufactories, motors	special
Bills payable quarterly	

FOSSTON (1,075)

Municipal Plant

Source of supply, wells

Pumping, steam

Number of flat rate consumers, 50

Public service—

Number of hydrants, 14

No charges made to municipality

Commercial service—

Flat rates:

Residences, per year.....	\$5.00
Livery barns	15.00
Hotels	15.00
Creamery	36.00
Hospital	10.00
No discounts for cash or prompt payment	

FULDA (743)

Municipal Plant

Source of supply, deep well, capacity 100 gal. per minute

Pumping, by means of engine into tank 100 ft. high

Number of flat rate consumers, 38

Number of metered consumers, 8

Public service—

Number of hydrants, 17

Commercial rates—

Minimum bill, 25 cts. per quarter for stock; \$1.25 per quarter
for house

Meter rates:

Less than 300 gal. per day, 5 cts. per 100 gal.

300 to 500 gal. per day, 4 cts. per 100 gal.

500 to 1,000 gal. per day, 3½ cts. per 100 gal.

1,000 to 5,000 gal. per day, 2½ cts. per 100 gal.

5,000 to 10,000 gal. per day, 2 cts. per 100 gal.

Over 10,000 gal. per day, special rates

Consumer to furnish meter

Flat rates:

Barber shop, first chair, per year.....	\$5.00
Each additional chair, per year.....	1.00
Bakeries, per year.....	5.00
Blacksmith shops, two fires or less, per year.....	5.00
Each additional fire over two, per year.....	1.00
Hose for setting tires, per year.....	3.00

Baths:

Private house, first bath, per year.....	\$3.00
Each additional bath, per year.....	1.00
Hotels and boarding houses, per year.....	6.00
Public, first, per year.....	8.00
Each additional, per year.....	5.00

Hotels and boarding houses:

For each room less than 10, per year.....	1.50
For each additional room over 10, per year.....	1.00

Carriage shops:

5 persons or less, per year.....	5.00
Each additional person, per year.....	.50
Extra for fires (see blacksmith shops)	

Churches, free except for motors

Dental offices, per year.....	5.00
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Dye shops	\$15.00 to 50.00
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Dwellings:

Each private occupied by one family, 5 rooms or less, per year	5.00
Each additional room, per year.....	.75

Fountains:

1/16-in. orifice, per year.....	8.00
1-in. orifice, per year.....	15.00
3/16-in. orifice, per year.....	30.00
1/4-in. orifice, per year.....	50.00
1/2-in. orifice, per year.....	100.00

Laundries, per year.....	\$10.00 and upward
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Gas engines:

Where tanks are used, 7 h.p. or less, per year....	5.00
Over 7 h.p., per year.....	10.00
Water connection with engine, by meter measurements	

Manufacturing:

H.p. boilers extra	
10 hands or less, per year.....	5.00
Each additional hand up to 20, per year.....	.50
Each additional hand beyond 20, per year.....	.25

Meat markets, per year.....	8.00
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Offices and sleeping rooms:

First room, per year.....	3.00
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Second room, per year.....	\$2.00
Each additional room, per year.....	1.00
Printing offices, per year.....	6.00
Photograph galleries, per year.....	5.00
Restaurants, per year	8.00
Stables:	
Private, for each horse or cow, per year.....	1.00
Livery and sale stables, for each stall, per year...	1.25
Steam engines, per year.....	special
Schoolhouse, per year.....	special
Saloons, per year.....	12.00
Soda fountains, per year.....	10.00
Tumbler washers, per year.....	5.00
Stores:	
For sale of goods except liquor, milk, drugs, 25 ft. front, one story high, per year.....	6.00
Each additional story used in connection with store, per year	1.50
Each additional 10 ft. in width, per year.....	1.50
Drug stores, per year.....	8.00
Water closets:	
In private houses, one family, first, per year.....	3.00
Each additional family, per year.....	1.00
Urinals:	
In private houses, stores, and offices, per year....	2.00
In barber shops, saloons, hotels, and public places, per year	5.00
Vegetable fountains, per year.....	4.00
In stores, banks, and offices, per year.....	4.00
In barber shops, saloons, and public places, per year.	6.00
Water troughs.....	special or meter rates
Yard sprinklers:	
For one building and yard of 50-ft. front, per year	5.00
For each additional 10 ft. or less, per year.....	.50

GLENCOE (1,788)

Municipal Plant

Source of supply, well (1,500 ft. deep, water within 90 ft. of surface)

Pumping, electricity

Number of metered consumers, 201

Public service—

Number of hydrants, 40

No charges to municipality

Street sprinkling, $1\frac{1}{2}$ cts. per front foot tax on property owners

Commercial service—

Meter rates:

First 5,000 gal., 15 cts. per 1,000 gal.

Next 30,000 gal., 20 cts. per 1,000 gal.

30,000 to 300,000 gal., 15 cts. per 1,000 gal.

300,000 to 600,000 gal., $12\frac{1}{2}$ cts. per 1,000 gal.

Over 600,000 gal., 10 cts. per 1,000 gal.

Minimum charge, \$1.50 per quarter

GLENWOOD (2,161)

Municipal Plant

Source of supply, springs above city

Pumping, no pumping, 70 pounds gravity pressure

Number of metered consumers, 300

Number of flat rate consumers, 25

Commercial service—

Minimum bill, \$1.25 for each quarter

Meter rates:

First 10,000 gal., 25 cts. per 1,000 gal.

Next 10,000 gal., 20 cts. per 1,000 gal.

Next 20,000 gal., 15 cts. per 1,000 gal.

Next 20,000 gal., 10 cts. per 1,000 gal.

All in excess of 60,000 gal., 7 cts. per 1,000 gal.

GRACEVILLE (987)

Municipal Plant

Source of supply, 1 8-in. and 1 6-in. well, each 500 ft. deep

Pumping, electric power

Number of metered consumers, 225

Public service—

Number of hydrants, 21

No charges to the municipality

Commercial service—

Meter rates:

Less than 300 cu. ft., 80 cts. per 100 cu. ft.

300 less than 500 cu. ft., 75 cts. per 100 cu. ft.

500 less than 750 cu. ft., 70 cts. per 100 cu. ft.

750 less than 1,000 cu. ft., 65 cts. per 100 cu. ft.

1,000 less than 1,500 cu. ft., 60 cts. per 100 cu. ft.

1,500 less than 2,000 cu. ft., 55 cts. per 100 cu. ft.

2,000 less than 3,000 cu. ft., 50 cts. per 100 cu. ft.

3,000 less than 5,000 cu. ft., 45 cts. per 100 cu. ft.

5,000 less than 10,000 cu. ft., 40 cts. per 100 cu. ft.

10,000 less than 20,000 cu. ft., 35 cts. per 100 cu. ft.

20,000 less than 50,000 cu. ft., 30 cts. per 100 cu. ft.

50,000 less than 100,000 cu. ft., 25 cts. per 100 cu. ft.

Minimum bill, \$8.00 per year

GRAND MEADOW (552)

Municipal Plant

Source of supply, well, 150 ft. deep

Pumping, gas engine

Number of flat rate consumers, 50

Public service—

Number of hydrants, 15

Commercial service—

Flat rates:

\$5.00 per year for residences

\$10.00 per year for hotels, livery stables, garages

HALLOCK (910)

Municipal Plant

Source of supply, Two Rivers

Pumping, gasoline engine, average for 24 hours, 64,000 gal.

Number of metered consumers, 3

Number of flat rate consumers, 75

Public service—

Number of hydrants, 17

Commercial service—

Meter rates:

100 to 500 gal. per day, 5 cts. per 100 gal.

500 to 1,500 gal. per day, 4 cts. per 100 gal.

1,500 to 3,000 gal. per day, 3½ cts. per 100 gal.

3,000 to 5,000 gal. per day, 3 cts. per 100 gal.

5,000 to 10,000 gal. per day, 2½ cts. per 100 gal.

10,000 or more gal. per day, 2 cts. per 100 gal.

Rent of meter in addition to the above rates, \$2.00 per year

No meter rates to be less than \$5.00 per year

Flat rates:

Banks, with one basin.....	\$5.00
Bakery, one oven	10.00
Each additional oven.....	5.00
Barber shops, one chair.....	8.00
Each additional chair	4.00
Bath, without heating apparatus, private.....	4.00
Bath, with heating apparatus, private.....	5.00
Bath, in boarding house or hotel, one tub.....	10.00
Each additional tub	6.00
Bath, public	special
Billiard hall, one table.....	5.00
Each additional table	2.00
Boarding house.....	\$8.00 to 20.00
Brick work, per 1,000 laid.....	.10
Butcher shop, steam extra.....	10.00
Blacksmith shop, one fire.....	4.00
Each additional fire	3.00
Cows, each	2.00
Fountain, 1/16-in. orifice, per season.....	12.00

Fountain, larger orifice, per season.....	special
Drug store	\$8.00
Dentist, one basin	5.00
Doctor, one basin	5.00
Halls and lodges	5.00
Horse, one, including washing carriage.....	5.00
Each additional	2.00
Hotels	special
Ice cream saloons.....	\$5.00 to 15.00
Laundry	special
Lumber yards	5.00
Lawn, 1 lot, 50 x 140.....	3.00
Each additional lot	1.00
Motors	special
Offices or sleeping rooms.....	5.00
Printing office, 6 hands or less, engine extra.....	10.00
Photograph gallery	10.00
Plastering, per sq. yd.....	.05
Restaurant	\$10.00 to 20.00
Residence, one faucet.....	5.00
Each additional faucet.....	1.00
Each additional family.....	5.00
Saloons	15.00
Sprinkling private gardens, $\frac{3}{4}$ -in. hose, $\frac{1}{2}$ -in. nozzle, first 50 yd., per sq. yd., per season.....	.04
Sprinkling, all over 50 yd., per sq. yd.....	.02
Sprinkling sidewalk to center of street, $\frac{3}{4}$ -in. hose, $\frac{1}{8}$ -in. nozzle, 1 $\frac{1}{2}$ hours a day, per front foot, per season .....	.10
Over 100-ft. front, per foot.....	.07
Stable, livery, sale or boarding, 6 horses or less, in- cluding carriage washing	15.00
Each additional stall	2.00
Steam boilers	special
Stone work, per perch.....	.07
Stores and shops, one faucet.....	5.00
Each additional faucet	2.00
Urinals, in private house, self-closing, each.....	4.00
Urinals, in stores, banks, and offices, self-closing....	5.00

Urinals, in hotels, boarding houses, and saloons, self-closing	special
Water closets, private.....	\$3.00
Water closets, public	5.00
Each additional	3.00
Water closets, banks, stores, and offices, for private use	3.00
Water basin	5.00

HANCOCK (524)

Municipal Plant

Source of supply, 8-in. well, 115 ft. deep

Pumping, gas engine

Number of metered consumers, 7

Number of flat rate consumers, 72

Public service—

Number of hydrants, 20

No charge to the municipality

Commercial service—

Meter rates:

Less than 300 gal. daily, 40 cts. per 1,000 gal.

300 to 500 gal. daily, 35 cts. per 1,000 gal.

500 to 1,000 gal. daily, 30 cts. per 1,000 gal.

Over 1,000 gal. per day, 25 cts. per 1,000 gal.

All meter rates shall be payable monthly and no meter rate shall be less than \$5.00 per year

Flat rates:

Bakeries, not exceeding 2 barrels per day.....	\$8.00
Bakeries and restaurants combined	10.00
Banks	5.00
Barber shops, 1 chair.....	5.00
Each additional chair	2.00
Bath, private, 1 tub and wash basin.....	5.00
Bath, public, 1 tub.....	10.00
Each additional tub.....	5.00
Billiard halls	5.00

Blacksmith shop	\$5.00
Boarding houses, 1 faucet.....	8.00
Each additional faucet	1.00
Building purposes, not less than.....	2.00
Laying brick, per 1,000 (mason's measurement) ..	.10
Laying stone, per cord (mason's measurement) ..	.20
Plastering, per 100 yd. (mason's measurement) ..	.50
Dentists	5.00
Drug stores	5.00
Fountains, season, 1/16-in. orifice.....	10.00
Hotels	meter
Laundries	meter
Lawns and gardens, hose for sprinkling lot 50 x 140.	3.00
Each additional lot or fraction.....	1.00
Lumber yards	5.00
Meat market, 1 faucet and use of hose.....	meter
Motors	meter
Offices and sleeping rooms.....	5.00
Photograph galleries	5.00
Public halls	5.00
Printing offices, not including engine.....	5.00
Printing offices, with engine.....	meter
Restaurant	5.00
Residence, 1 family, 1 faucet.....	5.00
Each additional family using same faucet.....	5.00
Each additional faucet	1.00
Saloons	10.00
Saloons, restaurant connections.....	15.00
Shops and factories	meter
Stables, private, for 2 head, either horses or cows..	5.00
Stables, private, in connection with residence.....	2.00
Each additional horse or cow, washing buggy in-	
cluded .....	.25
Stables, livery, 12 horses or less, washing buggies in-	
cluded	meter
Stables, sale and feed.....	meter
Stores, for store use only.....	5.00
Steam engines.....	meter
Street sprinkling	special
Urinals, public	5.00

Urinals, private	\$3.00
Water closets, private, each.....	3.00
Water closets, public, one.....	5.00
Each additional one	3.00
Water closets in banks, stores, and offices for private use	3.00

HASTINGS (3,983)

Municipal Plant

Source of supply, well

Pumping, gasoline engine

Number of metered consumers, 149

Number of flat rate consumers, 8

Public service—

Number of hydrants, 53

Rental charge, \$25.00 per annum for each

Commercial service—

0 to 500 gal. per day, 2 cts. per 100 gal.

500 to 1,000 gal. per day, 1½ cts. per 100 gal.

1,000 to 5,000 gal. per day, 1 1/5 cts. per 100 gal.

HAWLEY (800)

Municipal Plant

Source of supply, deep well

Pumping, gasoline engine

Number of flat rate consumers, 45

Public service—

Number of hydrants, 14

Commercial service—

Rates not permanently fixed

HECTOR (866)

Municipal Plant

Source of supply, tubular well

Pumping, gasoline engine

Number of metered consumers, 23

Public service—

Number of hydrants, 10

No charges to municipality

Commercial service—

Meter rates:

5 cts. per 100 gal.

No minimum rate

No discount

HOUSTON (700)

Municipal Plant

Source of supply, artesian wells

Pumping, gasoline engine

No consumers using city water. Consumers are supplied by individual artesian wells

Public service—

Number of hydrants, 7

No charges to the municipality, a compressed air system used only for fire protection

HOWARD LAKE (626)

Municipal Plant

Source of supply, Lake Howard

Pumping, electric motor

Number of flat rate consumers, 100

Public service—

24 hydrants at \$7.00 each per year

HUTCHINSON (2,368)

Hutchinson Lighting and Manufacturing Company

Source of supply, flowing well

Pumping, steam pump

Number of metered consumers, 175

Public service—

Number of hydrants, 45

City pays 6 cts. per 1,000 gal.

Commercial service—

Meter rates:

25 cts. per 1,000 gal.

Minimum bill, \$3.50 for the year

No discounts allowed

INTERNATIONAL FALLS (1,487)

Municipal Distributing System

Source of supply, Rainy River

Pumping, Minnesota and Ontario Power Company, at the rate of \$70.00 per 1,000,000 gal.

Public service and commercial service free

City pays for pumping, service free to all parts of the city where the mains have been extended

JACKSON (1,907)

Municipal Plant

Source of supply, well

Pumping, steam

Number of metered consumers, 10

Number of flat rate consumers, 112

Public service—

Number of hydrants, 31

No charges to municipality

Commercial service—

Meter rates:

Less than 300 gal. per day.,	5 cts. per 100 gal.
300 to 500 gal. per day,	4 cts. per 100 gal.
500 to 1,000 gal. per day,	3½ cts. per 100 gal.
1,000 to 5,000 gal. per day,	2½ cts. per 100 gal.
5,000 to 10,000 gal. per day,	2 cts. per 100 gal.
Special rates for all over 10,000 gal.	

Flat rates:

Residences, per month.....	\$0.50
Toilet, per month .....	.25
Bath, per month.....	.25
Sprinkling lawns, per season.....	5.00
Boarding houses, per year.....	6.00
Hotels, for each room less than 10, per year.....	1.50
When over 10, per year.....	1.00

JANESVILLE (1,173)

Municipal Plant

Source of supply, well 300 ft. deep

Pumping, motor

Number of metered consumers, 10

Number of flat rate consumers, 107

Public service—

Number of hydrants, 18

No charges made to the municipality

Commercial service—

Meter rates:

Less than 300 gal. per day,	40 cts. per 1,000 gal.
300 to 500 gal. per day,	30 cts. per 1,000 gal.
500 to 1,000 gal. per day,	25 cts. per 1,000 gal.
1,000 to 5,000 gal. per day,	20 cts. per 1,000 gal.
5,000 to 10,000 gal. per day,	15 cts. per 1,000 gal.
All over this amount, special rates	

Flat rates:

Building purposes:

Laying stone, per perch.....	\$0.02
Laying brick, per 1,000.....	.10
Plastering, per 100 yd.....	.40
Bakeries, h.p. boilers extra, per year.....	8.00

Blacksmith shops:

2 fires or less.....	5.00
Each additional fire	1.00
Hose for tire setting.....	3.00

Banks	6.00
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Barber shops, first chair.....	5.00
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Second chair	3.00
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Each additional chair	2.00
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Baths, private, first tub.....	3.00
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Each additional	1.00
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Baths, hotels and boarding houses.....	6.00
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Baths, public, first bath.....	8.00
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Each additional	5.00
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Hotels and boarding houses:

Each room less than 10.....	1.50
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Each room over 10.....	1.00
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Carriage shops, 5 persons or less.....	5.00
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Each additional person (extra for fires).....	.50
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Churches, free, except for motors

Dental offices, with motor meter rates.....	5.00
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Doctor's offices, with motor meter rates.....	5.00
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Dwellings, occupied by one family.....	6.00
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Fountains, per season, not exceeding 5 months:

1/16-in. orifice	8.00
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1 in. orifice	15.00
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3/16-in orifice	30.00
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1/4-in. orifice	50.00
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Gas engines where tanks are used:

7 h.p. or less, per year.....	5.00
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Over 7 h.p., per year.....	10.00
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Manufacturing, h.p. boilers extra:

10 hands or less, per year.....	5.00
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Each additional hand to 20.....	.50
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Each additional hand beyond 20.....	.25
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Meat markets	\$6.00
Offices and sleeping rooms:	
First room	3.00
Second room	2.00
Each additional room	1.00
Printing offices, h.p. boilers extra.....	6.00
Photograph galleries	5.00
Restaurants.....	\$6.00 and upwards
Stables, private, each horse or cow.....	1.00
Steam engines, meter rates	
Saloons, meter rates	
Soda fountains, per season.....	10.00
Tumbler washers, per month.....	5.00
Stores for sale of goods except liquors, milk, or drugs, not over 25 ft. wide and one story high, per year	6.00
Each additional story used.....	1.50
Each additional 10 ft. in width.....	1.50
Drug stores	8.00
Urinals in private houses, stores, and offices, per year	2.00
Saloons, barber shops, hotels, and public places, per year	5.00
Vegetable fountains, per year.....	4.00
Water closets in private dwellings occupied by one family, per year	3.00
Each additional	1.00
In stores, banks, and offices.....	4.00
In barber shops, saloons, public places.....	6.00
Yard sprinklers, 60-ft. front or less, one building only, per season	3.00
Each additional 10 ft. or less, per season.....	.30

JORDAN (1,151)

Municipal Plant

Source of supply, well

Pumping, steam pump located in power house of Jordan Elec-
tric Light and Heating Company

Number of metered consumers, 4

Public service—

Number of hydrants, 12

No charges to municipality

Commercial service—

Meter rates:

3¼ cts. per 100 gal.

KASSON (932)

Municipal Plant

Source of supply, well 320 ft. deep

Method of pumping, duplex steam pump

Number of flat rate consumers, 106

Public service—

Number of hydrants, 54

Commercial service—

Flat rates:

\$4.50 per year with an addition of \$3.00 for lawn sprinkling

50 cts. per year for each head of stock

KENYON (1,237)

Municipal Plant

Source of supply, well, 665 ft. deep

Pumping, steam

Number of flat rate consumers, 100

(All flat rates to be discontinued and meters installed by May 1, 1914)

Public service—

Number of hydrants, 25

No charges to municipality

Commercial service—

Meter rates:

First 4,000 gal. per half year, \$2.00

4,000 to 10,000 gal. per half year, 40 cts. per 1,000 gal.

10,000 to 20,000 gal. per half year, 25 cts. per 1,000 gal.

20,000 to 30,000 gal. per half year, 20 cts. per 1,000 gal.

30,000 to any amount per half year, 15 cts. per 1,000 gal.

LAKE BENTON (844)

Municipal Plant

Source of supply, large well

Pumping, steam

Number of metered consumers, 45

Public service—

Number of hydrants, 21

Street sprinkling, 25 cts. per tank on wagon

No other charges to the municipality

Commercial service—

\$2.00 per quarter minimum charge; 2,000 gal. allowed per quarter under minimum charge

20 cts. per 100 cu. ft. for all in excess of that amount.

LAKE CRYSTAL (1,055)

Municipal Plant

Source of supply, 700-ft. well

Pumping, electricity

Number of flat rate consumers, 38

Public service—

Number of hydrants, 11

No charges to the municipality

Commercial service—

Flat rates:

Dwellings, per year.....	\$6.00
Livery barn, per year.....	12.00
Garages, per year	12.00
Drug stores, per year.....	8.00

LAKE CITY (3,142)

Municipal Plant

Source of supply, drive well points

Pumping, steam, reciprocating pumps

Number of metered consumers, 307

Number of flat rate consumers, under contract, 1

Public service—

61 fire hydrants, gross rental per year, \$101.65

6 sprinkler hydrants, gross rental per year, \$125.00

No other charges to the municipality

Water for city hall, lock-up, parks, cemetery, Minnesota National Guard camp grounds, fire service and flushing furnished free

Commercial service—

Minimum bill, 75 cts. per month

Meter rates:

First 1,000 cu. ft. used in one month, 30 cts. per 100 cu. ft.

All above 1,000 cu. ft. used in one month, $12\frac{1}{2}$ cts. per 100 cu. ft.

Discount of 20% if paid on or before the 20th of the month

LAKEFIELD (924)

Municipal Plant

Source of supply, well, 185 ft. deep

Pumping, steam

Number of metered consumers, 60

Public service—

Number of hydrants, 17

Rental charge about \$140.00 per year

Commercial service—

Meter rates:

Less than 300 gal. per day, 5 cts. per 100 gal.

300 to 500 gal. per day, 4 cts. per 100 gal.

500 to 1,000 gal. per day, $3\frac{1}{2}$ cts. per 100 gal.

1,000 to 5,000 gal. per day, $2\frac{1}{2}$ cts. per 100 gal.

5,000 to 10,000 gal. per day, 2 cts. per 100 gal.

Over 10,000 gal. per day at special rates

LAMBERTON (652)

Municipal Plant

Source of supply, well
Pumping, gasoline engine
Number of metered consumers, 125
Number of flat rate consumers, 8

Public service—

Number of hydrants, 10
No charges to municipality

Commercial service—

Meter rate:

3 cts. per 100 gal.

Flat rates:

50 cts. per month without lawn sprinkling
75 cts. per month including lawn sprinkling

LANESBORO (987)

Municipal Plant

Source of supply, artesian well
Pumping, electricity
Number of flat rate consumers, 145

Public service—

21 hydrants at \$5.00 each per year

Commercial service—

Flat rates:

\$5.00 per annum

LE SUEUR CENTER (741)

Municipal Plant

Source of supply, well, 383 ft. deep
Pumping, electricity
Number of metered consumers, 60

Public service—

- Number of hydrants, 22
- No charges to municipality

Commercial service—

Meter rates:

- \$1.50 per 1,000 cu. ft.
- No discounts

LINDSTROM (522)

Municipal Plant

- Source of supply, well
- Pumping, gasoline engines
- Number of metered consumers, 38

Public service—

- Number of hydrants, 5

Commercial service—

- Minimum bill, 40 cts. per month
- Meter rates, 30 cts. per 1,000 gal.

LITCHFIELD (2,333)

Municipal Plant

- Source of supply, 48 2-in. drive points
- Pumping, steam
- Number of metered consumers, 200

Public service—

- 30 hydrants at \$50.00 per year
- Street sprinkling, \$250.00 per year
- No other charges to municipality

Commercial service—

- Minimum bill, \$4.00

Meter rates:

- First 5,000 gal., 40 cts. per 1,000 gal.
- Next 5,000 gal., 35 cts. per 1,000 gal.

Next 5,000 gal., 30 cts. per 1,000 gal.
Next 5,000 gal., 25 cts. per 1,000 gal.
Next 5,000 gal., 20 cts. per 1,000 gal.
Next 25,000 gal., 15 cts. per 1,000 gal.
All over 50,000 gal., 10 cts. per 1,000 gal.
Meters read every 6 months

LITCHFIELD (2,333)

Steam Heating Plant

Number of consumers, 40
Total radiation, 25,000 sq. ft.

All rates metered:

First 10,000 lbs., 70 cts.
Next 10,000 lbs., 60 cts.
Next 20,000 lbs., 55 cts.
Next 40,000 lbs., 50 cts.
All above this amount, 45 cts.
10% discount for cash in 10 days

LITTLE FALLS (6,078)

Little Falls Water Power Company

Source of supply, Mississippi River

Pumping, hydraulic

Number of metered consumers, 39

Number of flat rate consumers, 312

Public service—

55 hydrants at \$80.00 per hydrant per year

20 hydrants at \$50.00 per hydrant per year

No other charges to the municipality for street sprinkling, etc

Commercial service—

Minimum bill, \$1.00 per month

Meter rates:

First 10,000, 30 cts. per 1,000

Next 10,000, 25 cts. per 1,000

Next 10,000, 20 cts. per 1,000

Next 10,000, 15 cts. per 1,000

Next 10,000, 10 cts. per 1,000

All over 50,000, 5 cts. per 1,000

Flat rates:

Bakery, each oven.....	\$10.00 to \$50.00
Barber shop, first chair.....	7.00
Barber shop, each additional chair.....	3.00
Bath, private, first tub.....	6.00
Each additional tub.....	3.00
Baths, public, hotel and boarding or tenement house, first tub	10.00
Each additional tub.....	6.00
Beer, per barrel, brewed.....	.05
Billiard saloon, each table.....	3.00
Boarding house, each occupied room.....	2.00
Boarding house, no license less than.....	18.00
Brick works, per 1,000 manufactured.....	.10
Brick yard, each gang of hands.....	20.00
Confectionery manufactory	\$10.00 to 75.00
Cow	2.50
Fish market	\$10.00 to 25.00
Forge or smith shop, first fire.....	5.00
Each additional fire	3.00
Fountains to run not more than 4 hours daily on pleasant days, $\frac{1}{2}$ -in.	\$15.00 to 50.00
Horse and carriage	3.00
Work horse	2.00
Horse livery or sale stable.....	\$15.00 to 50.00
Hotel, less than 50 occupied rooms, per room.....	2.00
More than 50 occupied rooms.....	meter rates
Hotel, no license less than.....	25.00
Ice cream saloon.....	\$10.00 to 40.00
Laundry	18.00 to 200.00
Meat market	10.00 to 25.00
Office	7.00 to 25.00
Oyster saloon without bar.....	10.00 to 25.00
Photograph gallery	10.00 to 25.00
Residence occupied by 1 family, 4 rooms or less....	6.00
Each additional occupied room.....	1.00

Additional family in same house using same fixtures, one-half above regular rates

Restaurant	\$20.00 to	50.00
Saloon	20.00 to	50.00
Schools, per scholar .....		.05
Shop or factory, 5 hands or less.....		10.00
Each additional hand .....		.50
Sprinkling private garden or lawn with hose, per sq. yd. ....		.03
Sprinkling street half way across, hose, per front ft. ....		.10
Sprinkling by public carts, no license less than.....		5.00
Steam engine, 5 h.p. or less.....		30.00
Each additional h.p.		5.00
Store	\$5.00 to	30.00
Tenement, per occupied room.....		2.00
Tenement, no license less than.....		15.00
Urinal, with self-closing stop.....		5.00
Without self-closing stop.....		50.00
Wash basin, stationary, with waste pipe, private....		2.00
Wash basin, public, hotel, boarding or tenement house		5.00
Wash basin, without self-closing stop.....		50.00
Water closet with pan, private, first pan.....		4.00
Each additional pan		3.00
Water closet, public, hotel, boarding or tenement house, first pan		10.00
Each additional pan		5.00

LONG PRAIRIE (1,250)

Municipal Plant

Source of supply, 8-in. well, 180 ft. deep

Pumping, steam

Number of metered consumers, 67

Number of flat rate consumers, 25

Public service

Number of hydrants, 22

No charges to municipality

Commercial service—

Meter rates:

25 cts. per 1,000 gal.

Flat rates:

\$3.50 per year per tap

LIVERNE (2,540)

Municipal Plant

Source of supply, wells adjacent to rivers

Pumping, steam

Number of metered consumers, 450

Public service—

Number of hydrants, 50

No charges to the municipality

Commercial service—

Meter rates:

The following shall constitute the schedule of water rates
to be charged and collected under this ordinance, to-wit:

300 cu. ft. or less, \$1.25

600 cu. ft. or less, \$1.50

1,500 cu. ft. or less, \$1.50

All over 600 cu. ft., 10 cts. per 100 cu. ft.

1,500 to 10,000 cu. ft., 8 cts. per 100 cu. ft.

10,000 to 20,000 cu. ft., 7 cts. per 100 cu. ft.

All over 20,000 cu. ft., 6 cts. per 100 cu. ft.

Flat rates:

Water, per barrel	\$0.05
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Water, per tank25
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No other flat rates quoted

LYLE (544)

Municipal Plant

Source of supply, deep well

Pumping, gasoline engine

Number of metered consumers, 10

Number of flat rate consumers, 11

Public service—

11 hydrants, yearly rental, \$150.00

No other charges to municipality

Commercial service—

Meter rates:

30 cts. per 1,000 gal.

Flat rates:

One tap, per year..... \$5.00

Two taps, per year..... 7.50

McINTOSH (634)

Municipal Plant

Source of supply, well

Pumping, gasoline engine

This system just completed and no rates fixed for consumers

Public service—

Number of hydrants, 6

MADELIA (1,273)

Municipal Plant

Source of supply, wells

Pumping, two steam pumps

Number of metered consumers, 140

Public service—

Number of hydrants, 34

Commercial service—

Minimum bill, \$1.00 per quarter

Meter rate:

4 cts. per 100 gal.

No discounts

MADISON (1,811)

Municipal Plant

Source of supply, well

Pumping, 10-h.p. electric motor

Number of metered consumers, 50

Public service—

Number of hydrants, 40

No charges to the municipality

Commercial service

Meter rate:

30 cts. per 1,000 gal.

(This plant just completed and system of rates not fully established)

MAHNOMEN (796)

Municipal Plant

Source of supply, 5-in. 60-ft. well

Pumping, steam

Number of flat rate consumers, 5

Public service—

Number of hydrants, 3

No charges to the municipality

Commercial service—

Water rate, \$8.00

MANKATO (10,365)

Municipal Plant

Source of supply, four artesian wells

Pumping, steam

Number of metered consumers, 1,484

Public service

Number of hydrants, 190

No charges to the municipality

Commercial service—

Minimum bill, 50 cts. per month

10% penalty for bill not paid within 10 days after becoming due

Meter rates:

555 cu. ft. or less, 50 cts. per month

1,333 cu. ft. or less per month, 90 cts. per 1,000 cu. ft.

For all water used in excess of 1,333 cu. ft. and less than 13,333 cu. ft. per month, 75 cts. per 1,000 cu. ft.

For all water used in excess of 13,333 cu. ft. and less than 50,000 cu. ft. per month, 60 cts. per 1,000 cu. ft.

For all water used in excess of 50,000 cu. ft. per month, 45 cts. per 1,000 cu. ft.

MAPLETON (809)

Municipal Plant

Source of supply, well

Pumping, gasoline engine

Number of metered consumers, 75

Number of flat rate consumers, 15

Public service—

Number of hydrants, 16

Commercial service—

Meter rates:

5,000 to 25,000 gal., 30 cts. per 1,000 gal.

All over 25,000 gal., 15 cts. per 1,000 gal.

Flat rate:

\$3.00 per year for those using less than 10,000 gal.

MARBLE (887)

Municipal Plant

Source of supply, mining drift, 211 ft. deep, belonging to Oliver Iron Mining Company

Pumping, steam to 100,000-gal. tank

Number of metered consumers, 25

Number of flat rate consumers, 100

Public service—

City pays Oliver Iron Mining Company 10 cts. per 1,000 gal.
for water delivered to the municipal mains and charges consumers at rates given below

Commercial service—

Minimum bill, 50 cts.

Meter rates:

30 cts. per 1,000 gal. for first 5,000 gal.

25 cts. per 1,000 gal. for second 5,000 gal.

20 cts. per 1,000 gal. for all over 10,000 gal.

Flat rates:

Flat rates, 50 cts., small hydrants being placed in alleys for consumers' convenience

No discount on bills

MARSHALL (2,152)

Municipal Plant

Source of supply, artesian well

Pumping, steam pumps

Number of metered consumers, 175

Public service—

41 hydrants at \$70.00 each per year

Street sprinkling, per year, \$400.00

Commercial service—

Meter rates:

20 cts. per 100 cu. ft.

15 cts. per 100 cu. ft. in restaurants, hotels, feed and livery stables

Minimum charge, 50 cts. per month

MELROSE (2,591)

Municipal Plant

Source of supply, Sauk River

Pumping, steam and electricity

Number of metered consumers, 20

Number of flat rate consumers, 180

Public service—

Number of hydrants, 25

No rental charge

Street sprinkling, per year, \$50.00

No other charges to municipality

Commercial service—

Meter rates:

15 cts. per 100 cu. ft. less than 500 gal. per day

12½ cts. per 100 cu. ft., between 500 and 1,000 gal. per day

9 cts. per 100 cu. ft., 1,000 gal. or over used per day

Flat rates:

Lawn, 50-ft. lot \$3.00

Each additional lot 2.00

Residence, sink, per year..... 5.00

Closet, per year 2.00

Bath, per year 2.00

Office and stores, wash bowl, per year..... 2.50

Livery barn, for each horse kept, per year..... 2.00

Photograph galleries, per year..... 5.00

Stable, 1 cow or horse, per year..... 1.00

Pop factory, per year..... 10.00

Hotel, per year 65.00

Pipe organ, water motor, per year..... 60.00

Granite Co., polishers and engine, per year..... 75.00

MILACA (1,102)

Municipal Plant

Source of supply, 70-ft. well and Rum River

Number of metered consumers, 20

Public service—

Number of hydrants, 6

No charges to municipality

Commercial service

Meter rates:

For first 1,333 cu. ft., $22\frac{1}{2}$ cts. per 100 cu. ft.For next 3,333 cu. ft., $18\frac{3}{4}$ cts. per 100 cu. ft., or \$9.25 for 4,666 cu. ft.

For next 3,333 cu. ft., 15 cts. per 100 cu. ft., or \$14.25 for 7,999 cu. ft.

For next 3,333 cu. ft., $11\frac{1}{4}$ cts. per 100 cu. ft., or \$18.00 for 11,333 cu. ft.For next 3,333 cu. ft., $7\frac{1}{2}$ cts. per 100 cu. ft., or \$20.50 for 14,665 cu. ft.For next 3,333 cu. ft., $6\frac{3}{4}$ cts. per 100 cu. ft., or \$22.55 for 18,000 cu. ft.

Rates computed quarterly on the 1st of January, April, July, and October

MINNEAPOLIS (301,408)

Municipal Plant

Pumping, steam and electricity

Source of supply, Mississippi River

Number of metered consumers, 43,000

Number of flat rate consumers, 5,200

Public service—

Number of hydrants, 5,188

No charge for hydrant rental, sprinkling, or fire protection

4 cts. per 1,000 gal. for public buildings, parks, schools, etc.

Commercial service—

Meter rates:

8 cts. per 1,000 gal.

Minimum rate, \$4.00 per year

Flat rates:

30 cts. per room

Minimum charge, \$2.00 per year

All other connections metered

MINNEOTA (819)

Municipal Plant

Source of supply, well

Pumping, gasoline engine

Number of metered consumers, 15

Number of flat rate consumers, 60

Public service—

35 hydrants at \$4.00 per year per hydrant

Commercial service—

Meter rates:

45 cts. per 1,800 gal.

Flat rates:

Faucet	\$5.40
Closet	3.00
Bath	2.00
Sprinkling lawn	5.00
Livery barn	25.00
Saloon	21.00
Hotel	21.00
Restaurant	12.00
Garage	12.00
Dwellings without meters.....	5.00
Banks	5.00
General stores	5.00

MONTEVIDEO (3,056)

Municipal Plant

Source of supply, springs, gravity to reservoir, pumped from
reservoir to 100,000-gal. tank on 90-ft. tower

Pumping, electricity and gasoline engine

Number of metered consumers, 400

Public service—

Number of hydrants, 92

No charges to municipality; assessment of \$300.00 for sprinkling on frontage on First Street

Commercial service—

Minimum bill, \$5.00 per year, not including meter rent

Meter rent, per month, 15 cts.

Less than 5,000 cu. ft. per month, 15 cts. per 100 cu. ft.

Less than 10,000 cu. ft. per month, 12½ cts. per 100 cu. ft.

Over 10,000 cu. ft. per month, 10 cts. per 100 cu. ft.

MONTGOMERY (1,267)

Municipal Plant

Source of supply, well, 232 ft. deep

Method of pumping, 12-h.p. gasoline engine

Number of metered consumers, 60

Public service—

Number of hydrants, 21

Commercial service—

Meter rates:

0 to 300 gal. per day, 5 cts. per 100 gal.

300 to 500 gal. per day, 4 cts. per 100 gal.

500 to 1,000 gal. per day, 3½ cts. per 100 gal.

1,000 to 5,000 gal. per day, 2½ cts. per 100 gal.

5,000 to 10,000 gal. per day, 2 cts. per 100 gal.

MOORHEAD (4,840)

Municipal Plant

Pumping:

River: Gravity flow to pump pit and direct pressure

Wells: One Heitweiler pump, 105 gal. per minute

One centrifugal booster, 105 gal. per minute

One Downie pump, 165 gal. per minute

Source of supply, 1913, Red River; 1914, 2 10-in. artesian wells

Number of metered consumers, 468

Public service—

Number of hydrants, 134

Rental charge, per hydrant, per year, \$25.00

City hall, fire station, city jail, and watering trough, per year,
\$300.00

Commercial service—

First	1,200 cu. ft.,	40 cts. per 100 cu. ft.
Next	800 cu. ft.,	30 cts. per 100 cu. ft.
Next	2,000 cu. ft.,	20 cts. per 100 cu. ft.
Next	11,000 cu. ft.,	15 cts. per 100 cu. ft.
Next	5,000 cu. ft.,	7 cts. per 100 cu. ft.
Next	20,000 cu. ft.,	5 cts. per 100 cu. ft.

MORGAN (553)

Municipal Plant

Source of supply, deep well

Pumping, 15-h.p. gasoline engine

Public service—

Number of hydrants, 20

Commercial service—

Plant just completed at the date of this report and rates to
consumers not yet fixed

MORRIS (1,685)

Municipal Plant

Source of supply, wells

Pumping, electricity and gasoline

Number of metered consumers, 500

Public service—

47 hydrants at \$10.00 each per year

No other charges to the municipality

Commercial service—

Flat rates:

Residences, 1 family, 1 faucet.....	\$7.50
Each additional family using same faucet.....	7.50
Each additional faucet	2.00
Stables, private, including 3 head either horses or cattle	7.50
Stables in connection with residence, per head for all stock	1.00

All other service than that mentioned in the above schedule
to be metered

Minimum bill, \$2.00 per 6 months paid in advance

Meter rates:

For the first 3,000 gal. consumed, \$2.00 for 3,000 gal.

For an additional 5,000 gal. or fraction at 50 cts. per 1,000
gal., \$4.50 for 8,000 gal.

For an additional 5,000 gal. or fraction at 45 cts. per 1,000
gal., \$6.75 for 13,000 gal.

For an additional 25,000 gal. or fraction at 35 cts. per 1,000
gal., \$15.50 for 38,000 gal.

For an additional 25,000 gal. or fraction at 25 cts. per 1,000
gal., \$21.75 for 63,000 gal.

All water consumed in each 6 months over 63,000 gal. to be
charged for at the rate of 12 cts. per 1,000 gal.

Meters furnished by the consumers

MOUNTAIN IRON (1,343)

Municipal Plant

Source of supply, well

Pumping, steam

No private consumers

Number of hydrants, 18

MOUNTAIN LAKE (1,081)

Municipal Plant

Pumping, gasoline engine

Number of flat rate consumers, 127

Public service—

Number of hydrants, 23

Commercial service—

50 cts. per month, collected 3 months in advance

NASHWAUK (2,080)

Municipal Plant

Source of supply, deep wells

Pumping, steam

Number of flat rate consumers, 200

Public service—

Number of hydrants, 25 at \$5.00 per year each

No other charges to village

Commercial service—

Flat rates:

One faucet, per month..... \$0.50

Bath tub, per month..... .40

Urinal, per month..... .50

Toilet, per month..... .50

Livery barns, barber shops, saloons, etc., governed according to fixtures, etc.

No discount on water bill

NEW RICHLAND (685)

Municipal Plant

Source of supply, deep well with 120-ft. tower

Pumping, electric motor

Number of metered consumers, 4

Number of flat rate consumers, 74

Public service—

Number of hydrants, 18

No charges to municipality

Commercial service—

Meter rate:

25 cts. per 1,000 gal.

Flat rates:

For family use, per year..... \$5.00

For hotels, per year..... 10.00

For livery barns, per year..... 15.00

NEW ULM (5,648)

Municipal Plant

Source of supply, deep wells

Pumping, steam

Number of metered consumers, 670

Public service—

Number of hydrants, 103

Charge for street sprinkling, \$2,126.00

Commercial service—

Meter rates:

First 3,000 gal., 4 cts. per 100 gal.

Next 4,000 gal., $3\frac{1}{2}$ cts. per 100 gal.

Next 5,000 gal., 3 cts. per 100 gal.

Next 6,000 gal., $2\frac{1}{2}$ cts. per 100 gal.

Next 8,000 gal., 2 cts. per 100 gal.

Next 12,000 gal., 1 ct. per 100 gal.

No discounts

NORTHFIELD (3,265)

Municipal Plant

Public service—

Number of hydrants, 90

Charge to municipality, \$30.00 a year for each hydrant

An allowance of \$300.00 is also made for fountains in parks
and for other public uses

Commercial service—

Meter rates:

First 1,000 cu. ft. or less, minimum charge per quarter, \$1.50

Next 2,000 cu. ft. at 13 cts. per 100 cu. ft.

Next 7,000 cu. ft. at 8 cts. per 100 cu. ft.

All additional cu. ft. at $5\frac{1}{2}$ cts. per 100 cu. ft.

NORTH ST. PAUL (1,404)

Municipal Plant

Source of supply, deep well and lake

Pumping, steam

Number of metered consumers, 10

Public service—

Number of hydrants, 27

Commercial service—

Meter rates:

10,000 gal., 25 cts. per 1,000 gal.

30,000 gal., 20 cts. per 1,000 gal.

Above 30,000 gal., 15 cts. per 1,000 gal.

ORTONVILLE (1,774)

Municipal Plant

Source of supply, well on lake shore

Pumping, electric pump with capacity of 150 gal. per minute
and a steam-driven pump in reserve with a capacity of 400
gal. per minute

Number of metered consumers, 167

Public service—

22 hydrants at \$60.00 each per year

Fire protection:

First hour, \$1.00, and 50 cts. each following hour

No other charges to municipality

Commercial service—

Meter rates:

500 cu. ft. and less than 1,000 cu. ft. per quarter, 35 cts.
per 100 cu. ft.

1,000 cu. ft. and less than 2,000 cu. ft. per quarter, 30 cts.
per 100 cu. ft.

2,000 cu. ft. and less than 3,000 cu. ft. per quarter, 25 cts.
per 100 cu. ft.

3,000 cu. ft. and less than 5,000 cu. ft. per quarter, 20 cts.
per 100 cu. ft.

5,000 cu. ft. and less than 10,000 cu. ft. per quarter, 15 cts.
per 100 cu. ft.

10,000 cu. ft. and less than 20,000 cu. ft. per quarter, 12 cts.
per 100 cu. ft.

20,000 cu. ft. and less than 50,000 cu. ft. per quarter, 10 cts.
per 100 cu. ft.

Above 50,000 cu. ft. a special rate will be given

Meter rent, 25 cts. per month

Minimum, \$8.00 per year

OSAKIS (1,013)

Municipal Plant

Source of supply, Lake Osakis

Pumping, steam

Number of metered consumers, 21

Public service—

12 hydrants at \$40.00 per year each

No other charges to the municipality

Commercial service—

Meter rates:

First 300 gal. per day, 30 cts. per 1,000

Next 700 gal. per day, 25 cts. per 1,000

Next 5,000 gal. per day, 20 cts. per 1,000

No minimum charge

Bills payable quarterly

Note: Osakis Milling Company attends to reading meters
and collecting bills, receiving therefor one half the amount
collected

OWATONNA (5,658)

Municipal Plant

Source of supply, deep flowing wells

Pumping: One 12 and 25 x 9 x 18 Laidlaw-Dunn-Gordon
Gross compound high-duty pumping engine, capacity 1,500,000
gal. per day of 24 hours

Number of metered consumers, 76

Number of flat rate consumers, 950

Public service—

106 hydrants at \$50.00 per hydrant per year

Street sprinkling, per year, \$450.00; this is charged at regular meter rates

Commercial service—

Meter rates:

5,000 gal. or less, 30 cts. per 1,000
Next 5,000 gal., 25 cts. per 1,000
Next 25,000 gal., 20 cts. per 1,000
Next 25,000 gal., 10 cts. per 1,000
Next 25,000 gal., 9 cts. per 1,000
Balance, 8 cts. per 1,000

Flat rates:

Domestic use	\$5.00
Closet	4.00
Motor lift	3.00
Motor washing machines	4.00
Bath	3.00
Stock	1.00
Lawn	3.00

PARK RAPIDS (1,801)

Municipal Plant

Source of supply, river

Pumping, electric power furnished to city at a flat rate of \$3.45 per day

Number of flat rate consumers, 171

Number of metered consumers, 1

Public service—

Number of hydrants, 23

No charges to the municipality for services of any kind

Commercial service—

Meter rate: Special

Flat rates:

Banks, per year.....	\$3.00
Bakeries, per year.....	5.00
Barber shops	5.00
Bath tubs, each.....	5.00

Blacksmith shops	\$3.00
Boarding houses	5.00
Churches	free
Hotels	special
Halls	3.00
Laundries	special
Meat markets	special
Offices	2.00
Plastering, per 100 yd.....	.25
Photograph galleries	3.00
Residences, including bath, closets, etc.....	6.50
Livery stable	10.00
Hotel stable	5.00
Lawn, garden, etc., without residence.....	3.00
Brick yard, per 1,000.....	.04

PAYNESVILLE (901)

Municipal Plant

Source of supply, wells

Pumping, steam pump

Number of metered consumers, 50

Public service—

Number of hydrants, 17

\$18.00 per hydrant per year

Commercial service—

Meter rates:

First 1,000 gal., 60 cts. per 1,000 gal.

Next 4,000 gal., 40 cts. per 1,000 gal.

Above 5,000 gal., 25 cts. per 1,000 gal.

PELICAN RAPIDS (1,019)

Municipal Plant

Source of supply, river

Pumping, electricity

No water mains in town; water pumped from the river to an elevated tank; steam fire engine with several hundred feet of hose used for fire protection; water for sprinkling taken from elevated tank; no charges to the municipality

PERHAM (1,376)

Municipal Plant

Source of supply, well

Public service—

10 hydrants at \$40.00 each per year

Commercial service—

40,000 gal. per day furnished N. P. R. R. at \$40.00 per month

PINE CITY (1,258)

Municipal Plant

Source of supply, deep well

Pumping, electric-driven pump

Number of flat rate consumers, 25

Public service—

Number of hydrants, 28

Commercial service—

Meter rates:

First 1,000 gal., 75 cts.

Second 1,000 gal., 60 cts.

Third 1,000 gal. and all over, 50 cts.

PINE ISLAND (834)

Municipal Plant

Pumping, 2 triplex pumps, one operated by gas engine and one by steam

Source of supply, one 12-in. well and one 8-in. well

Number of flat rate consumers, 69

Public service—

Number of hydrants, 19

Commercial rates not given

PLAINVIEW (1,175)

Municipal Plant

Source of supply, well, 100 ft. deep

Pumping, gasoline engines

Number of metered consumers, 72

Number of flat rate consumers, 250

Public service—

Number of hydrants, 32

Rental charge, \$5.00 for each hydrant per year

Commercial service—

Meter rates:

3 cts. per 100 gal., with a minimum of \$5.00 a year

Flat rates:

\$8.00 for modern house

Cattle and horses, \$1.00 per head

PRESTON (1,193)

Municipal Plant

Source of supply, spring

Pumping, steam to reservoir, 220 ft. high

Number of flat rate consumers, 225

Public service—

33 hydrants at \$25.00 each per year

No other charges to municipality

Commercial service

Flat rates:

Residence, per year	\$5.00
Closets	3.00
Bath	2.00
Stock, per head.....	1.00

PRINCETON (1,555)

Municipal Plant

Source of supply, deep well

Pumping, Rumsey triplex pump
Number of metered consumers, 125

Public service—

15 hydrants at a total yearly rental of \$525.00
Street sprinkling, per year, \$150.00
No other charges to the municipality

Commercial service—

Minimum bill, \$6.00 per year

Meter rates:

First 1,000 gal., 30 cts. per 1,000 gal.
Second 1,000 gal., 25 cts. per 1,000 gal.
Balance, 20 cts. per 1,000 gal.

PROCTORKNOTT (2,243)

Proctor Water and Light Company

Source of supply, Lake Superior
Pumping, electricity, reservoir in West Duluth

Commercial service—

Minimum bill, 50 cts. per month

Meter rates:

First 8,000 cu. ft., $17\frac{1}{2}$ cts. per 100 cu. ft.
Next 8,000 cu. ft., 10 cts. per 100 cu. ft.
Next 60,000 cu. ft., $7\frac{1}{2}$ cts. per 100 cu. ft.
Next 100,000 cu. ft., $5\frac{1}{2}$ cts. per 100 cu. ft.
Over 100,000 cu. ft., $2\frac{1}{2}$ cts. per 100 cu. ft.

RED WING (9,048)

Municipal Plant

Source of supply, artesian well
Pumping, electrically driven centrifugal pump
Number of metered consumers, 947

Public service—

152 hydrants, each, per year, \$40.00
Water for public buildings, 8 cts. per 100 cu. ft.
No other charges to municipality

Commercial service—

Meter rates:

First 2,000 cu. ft. per month, 20 cts. per 100 cu. ft.

Over 2,000 cu. ft. per month, 8 cts. per 100 cu. ft.

Minimum charge per month, 20 cts.

Meter rent per month, 20 cts.

No discounts

REDWOOD FALLS (1,666)

Municipal Plant

Source of supply, springs, river used in case of fire

Number of metered consumers, 238

Number of flat rate consumers, 15

Public service—

Number of hydrants, 53

No charges to the municipality

Commercial service—

Meter rates:

Minimum bill, 75 cts.

Less than 3,600 cu. ft. consumed in 6 months, 3 mills per cu. ft., not to exceed \$8.10

Over 3,600 cu. ft. and less than 5,000 cu. ft., $2\frac{1}{4}$ mills per cu. ft., not to exceed \$9.50

Over 5,000 cu. ft. and less than 10,000 cu. ft., 1.9 mills per cu. ft., not to exceed \$15.00

Over 10,000 cu. ft. and less than 15,000 cu. ft., $1\frac{1}{2}$ mills per cu. ft., not to exceed \$18.75

Over 15,000 cu. ft. and less than 20,000 cu. ft., $1\frac{1}{4}$ mills per cu. ft., not to exceed \$22.50

Over 20,000 cu. ft. and less than 25,000 cu. ft., $1\frac{1}{8}$ mills per cu. ft., not to exceed \$25.00

Over 25,000 cu. ft., 1 mill per cu. ft.

Rates based on a period of 3 months

RENVILLE (1,182)

Municipal Plant

Pumping, steam pump

Source of supply, well

Number of metered consumers, 71

Public service—

Number of hydrants, 24

No charges made to city for fire protection, street sprinkling,
etc.

Commercial service—

Meter rates:

0 to 300 gal. per day, 5 cts. per 100 gal.

300 to 500 gal. per day, 4 cts. per 100 gal.

500 to 1,000 gal. per day, $3\frac{1}{2}$ cts. per 100 gal.

1,000 to 5,000 gal. per day, $2\frac{1}{2}$ cts. per 100 gal.

No flat rates or discounts

ROCHESTER (7,844)

Rochester Water Company

Source of supply, wells

Pumping, steam

Number of metered consumers, 1,100

Number of flat rate consumers, 350

Public service—

192 hydrants at \$32.50 each per year

Street sprinkling, 10 cts. per 1,000 gal.

ROSEAU (644)

Municipal Plant

Pumping, 350-gal. triplex pump from well with 12-inch gravity
flow intake pipe. (Steam, with gasoline reserve to be used
in event of low steam, at time of fire)

Source of supply, Roseau River

Number of flat rate consumers, 2

No metered consumers

Public service—

Number of hydrants, 5

No rates established

Commercial service—

\$1.00 per month for 1 consumer

\$10.00 per month for court house

Plant placed in operation December 6, 1913

RUSTHURD (1,011)

Municipal Plant

Source of supply, flowing well

Pumping, steam

Number of metered consumers, 70

No flat rate consumers

Public service—

Number of hydrants, 23

Street sprinkling charge based on frontage

Average rate, 25 cts. per week

Commercial service—

Meter rent, per year, 80 cts.

Water rate, per 1,000 gal., 20 cts.

ST. CHARLES (1,159)

Municipal Plant

Source of supply, well, 300 ft., with reservoir, 75 ft. above city

Number of metered consumers, 164

Number of flat rate consumers, 73

Public service—

Number of hydrants, 40

No charge made to municipality

Commercial service—

Meter rates:

\$4.00 per year for first 12,000 gal.; 20 cts. per 1,000 for additional amount

Flat rates:

Residence, per year.....	\$5.00
Sprinkling, extra	4.00
Each horse or cow extra.....	1.00
Bath and toilet	3.00
Barber shops, one chair.....	5.00
Additional chairs, each.....	2.00
Bath	2.00
Toilet	3.00
Livery barns	15.00
Washing machines	2.00

ST. CLOUD (10,600)

Municipal Plant

Source of supply, Mississippi River
Pumping, electrical centrifugal pumps
Number of metered consumers, 900
Number of flat rate consumers, 100

Public service—

Number of hydrants, 188
Street sprinkling, \$917.00 per year
Fire protection, \$5,600.00 per year
No other charges to municipality

Commercial service—

Meter rates:

First 4,000 cu. ft., 20 cts. per 100 cu. ft.
Next 8,500 cu. ft., 16 $\frac{2}{3}$ cts. per 100 cu. ft.
Next 60,000 cu. ft., 14 $\frac{2}{7}$ cts. per 100 cu. ft.
Next 100,000 cu. ft., 12 $\frac{1}{2}$ cts. per 100 cu. ft.
Over 172,500 cu. ft., 8 $\frac{1}{3}$ cts. per 100 cu. ft.

Flat rates are being replaced by meters as rapidly as possible

ST. PAUL (214,744)

Municipal Plant

Source of supply, natural lakes: Rice Lake, Centerville Lake, Vadnais Lake, Phalen Lake

Pumping, steam; three low-lift pumping stations; three pumping stations on distributing system

Number of metered consumers, 27,500

Number of flat rate consumers, 7,500

Public service—

Number of hydrants, 3,372

Rental of city hydrants, per hydrant, per year, \$14.00

Charges to public buildings, schools, parks, and playgrounds at regular meter rate, 6 cts. per 100 cu. ft.

Water for street sprinkling, free

Commercial service—

Meter rates:

6 cts. per 100 cu. ft.

Size of Meters	Minimum Rates	Size of Meters	Minimum Rates
$\frac{5}{8}$ -in.....	\$0.30	3-in.....	\$4.50
$\frac{3}{4}$ -in.....	.35	4-in.....	8.00
1 -in.....	.50	6-in.....	18.00
1 $\frac{1}{4}$ -in.....	.80	8-in.....	32.00
1 $\frac{1}{2}$ -in.....	1.10	10-in.....	50.00
2 -in.....	2.00	12-in.....	72.00

Flat rates:

Private hydrants, per month.....	\$2.50
Private dwellings, each family occupying 4 rooms or less, per year	3.00
Each family, occupying 5 rooms, per year.....	3.50
Each family, per additional room, per year.....	.30
Tenements, 3 or more families, per family, per year.	3.00
Boarding and furnished room houses, for each boarder, or furnished room for rent, in excess of two (in addition to private dwelling rate), per year...	.50
Water closets and urinals, each, per year.....	3.00
Baths, each, per year.....	2.00

Note—Combination stationary wash tubs, having a movable division in the center, or capable of use for bathing; shower baths not installed over bath tubs, and sitz baths shall be charged the same as bath tubs

Horse, cattle, etc., per head, per year..... \$2.00

The following rates will be charged for water used for building purposes:

Bricklaying (mason's measurement), per 1,000..... .05

Concrete, per cu. yd..... .02 $\frac{1}{4}$

Masonry (mason's measurement), per perch..... .01 $\frac{1}{2}$

Plastering (plasterer's measurement), per 100 sq. yd. .20

Tile sidewalks, concrete walks, etc., per 100 sq. yd.. .20

No permit will be issued for less than..... 1.00

ST. PETER (4,176)

Municipal Plant

Source of supply, 2 artesian wells, 8-in., 330 and 592 ft. deep

Pumping, steam

Number of metered consumers, 260

Number of flat rate consumers, 1

Public service—

46 hydrants at \$45.00 each per year

Street sprinkling and water fountain, \$1,200.00 per year

Commercial service—

Minimum bill, \$1.00 per quarter

1 to 20,000 gal. per quarter, 3 cts. per 100 gal.

20,000 to 50,000 gal. per quarter, 2 cts. per 100 gal.

50,000 and up gal. per quarter, 1 $\frac{1}{2}$ cts. per 100 gal.

Payments to be made monthly, 10% discount if paid on or before the 15th of the following month

SANDSTONE (1,818)

Private Plant (Kettle River Company)

Source of supply, spring well

Pumping, electric pump

Number of flat rate consumers, 240

No metered consumers

Public service—

29 hydrants at \$40.00 each per year

No other charges for street sprinkling or fire protection

Commercial service—

Flat rates:

Residences, \$1.00 per month, including sprinkling

Boarding houses, livery barns, saloons, \$2.00 per month

SAUK CENTER (2,154)

Municipal Plant

Source of supply, Sauk Lake

Pumping, water pump, steam pump, and electric pump, direct pressure

Number of metered consumers, 1

Number of flat rate consumers, 250

Public service—

Number of hydrants, 45

No charges made to the municipality

Commercial service—

Meter rates:

The Great Northern Railroad Station is on a meter basis, paying 8 cts. per 1,000 gal.

Flat rates:

Family, 4 rooms or less.....	\$5.00
Each additional family using the same fixtures...	3.00
Horse and carriage, private.....	2.00
Work horse	1.00
Livery stable	\$10.00 to 50.00
Watering grounds with hose, one lot.....	5.00
Each additional lot	3.00
Restaurant	\$5.00 to 20.00
Saloon	\$15.00 to 40.00
Bath, private, one tub.....	3.00

Bath, public, one tub.....	\$8.00
Each additional tub.....	3.00
Barber shop, one chair.....	5.00
Each additional chair	2.00
Closet	3.00
Family, house and grounds.....	\$10.00 to 30.00

SAUK RAPIDS (1,745)

Municipal Plant

Source of supply, well

Pumping, electric

Number of metered consumers, 40

Number of flat rate consumers, 54

Public service—

Number of hydrants, 20

No charge to municipality

Commercial service

Meter rates:

30 cts. per 1,000 gal.

All consumers to be on meter basis after May 1

SHAKOPEE (2,302)

Municipal Plant

Number of metered consumers, 48

Public service—

Number of hydrants, 35

Commercial service—

Meter rates:

Minimum bill per quarter, including meter rental of 20 cts.,
is \$1.50

First 20,000 gal. or less per quarter, 3 cts. per 100 gal.

For each 100 gal. above 20,000 up to 50,000 gal., 2 cts. per
100 gal.

In excess of 50,000 gal., 1½ cts. per 100 gal.

SHIRBURN (814)

Municipal Plant

Source of supply, reservoir and tank

Pumping, gas engine

Number of metered consumers, 35

Number of flat rate consumers, 15

Public service—

Number of hydrants, 31

Commercial rates—

Meter rate:

35 cts. per 1,000 gal.

Flat rate:

Minimum charge, \$6.00 per year

SLEEPY EYE (2,247)

Municipal Plant

Source of supply, two wells

Pumping, one steam and one electric pump

Number of metered consumers, 87

No flat rate consumers

Public service—

Number of hydrants, 27

City is charged \$315.75 per month for street lights, street sprinkling, and fire protection

Commercial service—

Minimum bill, 40 cts. per month

Meter rates:

40 cts. per 1,000 gal.

SOUTH ST. PAUL (4,510)

Municipal Plant

Pumping, steam pump operated by Swift & Company

Source of supply, artesian well, owned by Swift & Company

Number of metered consumers, 496

No flat rate consumers

Public service—

Number of hydrants, 83

No rental for hydrants

Street sprinkling, 15 cts. per 1,000 gal.

No charge for fire protection

Commercial service—

Meter rates:

First 10,000 gal., 30 cts. per 1,000 gal.

10,000 to 50,000 gal., 25 cts. per 1,000 gal.

50,000 to 100,000 gal., 22 cts. per 1,000 gal.

100,000 gal. or more, 20 cts. per 1,000 gal.

SPRINGFIELD (1,482)

Municipal Plant

Source of supply, three springs

Number of metered consumers, 100

No flat rate consumers

Public service—

Number of hydrants, 45

No charges to municipality

Commercial service—

Meter rates:

3 cts. per 100 gal.

Minimum bill, 75 cts. per quarter

SPRING VALLEY (1,817)

Municipal Plant

Source of supply, natural spring

Pumping, gasoline engine

Number of metered consumers, 170

Number of flat rate consumers, 5

Public service—

Number of hydrants, 33

Commercial service—

Meter rates:

Meter rent, 50 cts. per quarter

For the first 2,000 gal. or less, a charge of \$1.00 is made

Next 2,000 gal., 30 cts. per 1,000 gal.

Next 10,000 gal., 20 cts. per 1,000 gal.

All over 14,000 gal., 15 cts. per 1,000 gal.

STAPLES (2,558)

Municipal Plant

Source of supply, well

Method of pumping, from well to reservoir by electric motor driven pump and from reservoir to elevated tank by steam pump

Number of metered consumers, 114

Public service—

Number of hydrants, 30

Rental charge, \$40.00 for each hydrant per year

Commercial service—

Meter rates:

Rate is \$3.00 per 1,000 cu. ft. with discounts applied as follows:

Number Cu. Ft.	Discount	Amount	Addition per 100 Cu. Ft.
1,000 cu. ft.	0	\$3.00	
2,000 cu. ft. (\$ 6.00) ...	4%	5.76	27.6 cts.
3,000 cu. ft. (9.00) ...	6%	8.46	27.0 cts.
4,000 cu. ft. (12.00) ...	8%	11.04	25.8 cts.
5,000 cu. ft. (15.00) ...	10%	13.50	24.6 cts.
6,000 cu. ft. (18.00) ...	12%	15.84	23.4 cts.
7,000 cu. ft. (21.00) ...	14%	18.06	22.2 cts.
8,000 cu. ft. (24.00) ...	16%	20.16	21.0 cts.
9,000 cu. ft. (27.00) ...	18%	22.14	19.8 cts.
10,000 cu. ft. (30.00) ...	20%	24.00	18.6 cts.
11,000 cu. ft. (33.00) ...	22%	25.74	17.4 cts.
12,000 cu. ft. (36.00) ...	24%	27.36	16.2 cts.
13,000 cu. ft. (39.00) ...	26%	28.86	15.0 cts.

Number Cu. Ft.	Discount	Amount	Addition per 100 Cu. Ft.
14,000 cu. ft. (\$42.00)...	28%	\$30.34	13.8 cts.
15,000 cu. ft. (45.00)...	30%	31.50	12.6 cts.
16,000 cu. ft. (48.00)...	32%	32.64	11.4 cts.
17,000 cu. ft. (51.00)...	34%	33.66	10.2 cts.
18,000 cu. ft. (54.00)...	36%	34.56	9.0 cts.
19,000 cu. ft. (57.00)...	38%	35.34	7.8 cts.
20,000 cu. ft. (60.00)...	40%	36.00	6.6 cts.

For each 100 cu. ft. used above 20,000, add 15 cts. to \$36.00 ;
meters read the 15th of every third month and bills paid
on or before the 1st of the month following reading are
discounted 5% if above \$1.00

STILLWATER (10,198)

Municipal Plant

Source of supply, lake; gravity system for lower system, pump
to stand pipe from springs for residence district

Pumping, steam

Number of flat rate consumers, 1,000

No metered consumers

Public service—

135 hydrants, gross rental per year, \$9,540.00

Street sprinkling by private means

Total rental charge to city for fire protection hydrants, etc.,
\$2,500.00

Commercial service—

Flat rates:

6-room house, per year.....	\$7.00
For each additional room.....	.60
Closet, extra per year.....	4.00
Bath, extra per year.....	3.00
Saloons and hotels	\$4.00 to 6.00
Sprinkling for 50-ft. front.....	2.00
Additional 50 ft.....	1.00
Corners, extra	1.00

Rates subject to discount of 20%

THIEF RIVER FALLS (3,714)

Municipal Plant

Source of supply, Red Lake River

Pumping, electrically driven triplex pump

Number of metered consumers, 200

No flat rate consumers

Public service—

50 hydrants at \$60.00 each per year

No other charges to the municipality

Commercial service—

Meter rates:

10,000 gal. or less per month, 5 cts. per 100 gal.

10,000 to 20,000 gal. per month, 4 cts. per 100 gal.

20,000 to 40,000 gal. per month, 3 cts. per 100 gal.

Over 40,000 gal. per month, 2 cts. per 100 gal.

No discounts

TRACY (1,876)

Municipal Plant

Source of supply, well

Pumping, electric motor

Number of flat rate consumers, 400

No metered consumers

Public service—

34 hydrants at \$50.00 each per year

No other charges to municipality

Commercial service—

Flat rates:

Dwellings, per month.....	\$0.75
Water closets, private, per month.....	.25
Water closets, public, per month.....	1.99
Drug stores, saloons, confectionery stores, per month	1.00
Hotels, per month.....	5.00
Cement plant, per year.....	100.00
Creamery, per year.....	75.00
Pop factory, per year.....	50.00
Livery, per year.....	60.00

TWO HARBORS (4,990)

Municipal Plant

Source of supply, Lake Superior

Pumping, steam

Number of metered consumers, 1

Number of flat rate consumers, 1,125

Public service—

Number of hydrants, 42

No charges to municipality for service

Commercial service—

Flat rates:

Private residence, one family, no special fixtures, per year	\$8.00
Private water closet.....	2.00
Public water closet.....	5.00
Private bath tub.....	2.00
Public bath tub.....	10.00
Each additional tub.....	6.00
Offices, no special fixtures.....	5.00
Dry goods stores, drug stores, grocery stores, and markets	10.00
General stores	15.00
Saloons, no special fixtures.....	15.00
Shoe, harness and tailor shops, jewelry and hardware stores	5.00
Barber shops, first chair.....	5.00
Each additional chair.....	3.00
Horses, each	2.00
Cows, each	1.00
Hotels, boarding houses, livery stables, laundries, public buildings, and all large consumers.....	special rates

VIRGINIA (10,473)

Municipal Plant

Source of supply, driven wells

Pumping, steam

Number of metered consumers, 1,800

Number of flat rate consumers, 75

Public service

109 hydrants at average rate of \$100 each per year

No other charges to municipality

Commercial service—

Meter rates:

First 10,000 cu. ft., 20 cts.

Next 10,000 cu. ft., 18 cts.

Next 20,000 cu. ft., 15 cts.

Next 30,000 cu. ft., 12 cts.

Next 30,000 cu. ft., 10 cts.

All over 100,000 cu. ft., 8 cts.

Consumer pays for water meter, same to be standard and satisfactory to Commission

Flat rates:

Stores:

	Per Year
Minimum, per 25 cu. ft.....	\$6.00
Toilet, first	4.00
Each additional	2.00
Bath, first	3.00
Each additional	1.50
Wash basins	2.00
Cellar syphon	2.00
Steam heat, per 25 cu. ft.....	1.00
Butcher shop, extra.....	5.00
Candy kitchen	saloon rate
Bakery and manufacturing rated on application	
Printing, same as store	
Photograph gallery, same as store	
Concrete, per cu. yd.....	.03
Laying brick, per 1,000.....	.10

Residence:

Minimum	6.00
Toilet	4.00
Each additional	2.00

Bath	\$2.00
Each additional	1.00
Sink	1.00
Each additional .....	.50
Lavatory	1.00
Each additional .....	.50
Garage, one car.....	5.00
Each additional car.....	2.50
Horse	2.00
Cow	2.00
Cellar syphon	2.00
Sprinkling, first 25 ft., \$2.00, additional up to 50 ft.	
\$3.00 (4 hrs.) for each 25 ft. additional to 50 ft.	2.00
Additional roomers, each.....	1.00
Additional boarders. each.....	1.00
Saloons:	
Minimum	15.00
Toilet, first	6.00
Each additional	4.00
Urinal, open	6.00
Each additional	4.00
Urinal, automatic	4.00
Beer pump	6.00
Cellar pump	2.00
Lavatory	2.00
Each additional	1.00
Steam heat, per year.....	1.00
Hotels:	
Minimum	15.00
Toilet	6.00
Each additional	4.00
Toilet, individual room.....	2.00
Bath, individual room.....	2.00
Lavatory, individual room.....	1.00
Bath, public	6.00
Each additional	4.00
Urinal, public, open.....	6.00
Each additional	4.00
Urinal, public, automatic.....	4.00
Each additional	2.00

Steam heat, per year.....	\$2.00
Rooms, per year	1.00
Barber shops:	
First chair	8.00
Each additional	4.00
Baths	6.00
Each additional	5.00
Wash basin	3.00
Each additional	2.00
Toilet	4.00
Each additional	2.00
Offices:	
Per room	2.00
Additional fixtures, public rate	
Billiard halls, same as saloon rate	
Churches, same as residence rate	
Hospitals, same as boarding houses	
Dentist, first chair.....	10.00
Each additional	4.00
Tenement house, toilet, first family.....	4.00
Each additional family using same toilet.....	3.00
Plastering, per sq. yd.....	.10
Steam engines, per h.p. per year.....	2.00
Hydraulic vacuum pump on application	

WADENA (1,820)

Municipal Plant

Source of supply, well

Number of metered consumers, 150

No flat rate consumers

Public service—

25 hydrants at \$35.00 each per year

No other charges to municipality

Commercial service—

10 cts. per 100 cu. ft.

40 cts. minimum

WALKER (917)

Municipal Plant

Source of supply, Leech Lake

Pumping, duplex steam pump, 10 x 7 x 12

Number of flat rate consumers, 70

No metered consumers

Public service—

16 hydrants at \$10.00 each per year

No other charges to municipality

Commercial service—

Meter rates:

Less than 300 gal. daily, 40 cts. per 1,000 gal.

300 to 500 gal. daily, 35 cts. per 1,000 gal.

500 to 1,000 gal. daily, 30 cts. per 1,000 gal.

Over 1,000 gal. daily, 25 cts. per 1,000 gal.

All meter rates shall be payable monthly and no meter rate shall be less than \$5.00 per year

Meters furnished by the consumer

Flat rates:

Bakeries, not exceeding 2 barrels per day.....	\$8.00
Bakeries and restaurants combined.....	10.00
Banks	5.00
Barber shops, one chair.....	5.00
Each additional chair	2.00
Bath, private, 1 tub and wash basin.....	5.00
Bath, public, 1 tub.....	10.00
Each additional tub	5.00
Billiard halls	5.00
Blacksmith shops, 1 fire.....	5.00
Each additional fire.....	1.00
Hose for setting tires.....	2.00
Boarding house, one faucet.....	10.00
Each additional faucet.....	1.00
Building purposes, not less than.....	2.00
Laying brick, per 1,000 (mason's measurement)....	.10
Laying stone, per cord (mason's measurement)....	.20
Plastering, per 100 sq. yd. (mason's measurement) .	.50
Dentists	5.00

Drug store	\$8.00
Fountains, season, 1/16-in. orifice.....	10.00
Hotels, not exceeding 30 rooms.....	24.00
Exceeding 30 rooms.....	32.00
Laundries	12.00
Lawns and gardens, season, hose for sprinkling lot 50 x 140.....	4.00
Each additional lot or fraction.....	1.00
Lumber yards	5.00
Meat markets, 1 faucet and use of hose.....	8.00
Motors	meter
Offices and sleeping rooms.....	5.00
Photograph galleries	8.00
Public halls	5.00
Printing offices, not including engine.....	5.00
With engine	meter
Restaurants	8.00
Residence, one family, 5 rooms.....	7.00
Each additional room	1.00
Each additional family	7.00
Saloons	20.00
Saloons, restaurant connection	28.00
Shop and factories	meter
Stables, private, for 2 head, either horses or cows..	5.00
Stables, private, in connection with residence.....	2.00
Each additional horse or cow, washing buggy in- cluded .....	.25
Stables, livery, 12 horses or fewer, washing buggies included	meter 2.00
Stables, sale and feed.....	meter
Steam heat, per month, while used.....	3.00
Stores, for store use only.....	5.00
Steam engines	meter
Street sprinkling	2.00
Urinals, public	5.00
Urinals, private	3.00
Water closets, private, each.....	3.00
Water closets, public, first one.....	5.00
Each additional one.....	3.00

Water closets in banks, stores, and offices, for private use \$3.00

WARREN (1,650)

Municipal Plant

Source of supply, deep well

Pumping, steam

Number of metered consumers, 204

Number of flat rate consumers, 70

Public service—

Number of hydrants, 27

No charge to the municipality

Commercial service—

Minimum bill per quarter, \$1.25

Meter rates:

1 to 30,000 gal. per quarter, 40 cts. per 1,000 gal.

30,001 to 40,000 gal. per quarter, 35 cts. per 1,000 gal.

45,001 to 90,000 gal. per quarter, 30 cts. per 1,000 gal.

90,001 and over gal. per quarter, 25 cts. per 1,000 gal.

No discounts

WELCOME (543)

Municipal Plant

Source of supply, 8-in. tubular well

Pumping, gasoline engine

Public service—

5 hydrants, gross rental, per year, \$164.00

WELLS (1,755)

Municipal Plant

Source of supply, well

Pumping, electricity from well to cistern; from cistern to elevated tank and direct pressure by steam

Number of metered consumers, 165

Number of flat rate consumers, 20

Public service—

27 hydrants at \$25.00 each per year

2 fountains, \$300.00 each per year

No other charges to the municipality

Commercial service—

Minimum bill, \$5.00 per year

Consumer furnishes the meter

Meter rates:

33 cts. per 1,000 gal.

22 cts. per 1,000 gal. if 1,000 gal. per day used

10% discount if paid before the 10th of month

Flat rate:

For outside hydrants, \$7.00 per year

WEST CONCORD (584)

Municipal Plant

Source of supply, well

Pumping, gasoline engine direct from well

No private consumers

Public service—

Number of hydrants, 18

WEST MINNEAPOLIS (3,022)

Municipal Plant

Source of supply, well owned by Minneapolis Threshing Machine Company

Pumping, steam pump, owned by Minneapolis Threshing Machine Company; this company charges the village 15 cts. per 1,000 gal. pumped into the village tank

Number of metered consumers, 90

Public service—

Number of hydrants, 34

Rate, 15 cts. per 1,000 gal.

Commercial service—

Meter rates:

15 cts. per 1,000 gal.

WHEATON (1,300)

Municipal Plant

Source of supply, tubular wells

Pumping, gasoline engine

Number of metered consumers, 100

No flat rate consumers

Public service—

Number of hydrants, 30

No charges to the municipality

Commercial service—

Meter rates:

First 1,000 cu. ft. per month, \$6.00 per 1,000

Next 1,000 cu. ft. per month, \$4.00 per 1,000

Balance, \$3.00 per 1,000

WHITE BEAR (1,505)

Municipal Plant

Source of supply, two deep wells

Pumping, electric motors

Number of metered consumers, 197

No flat rate consumers

Public service—

Number of hydrants, 40

No charges to municipality

Commercial service—

Minimum bill where meter is installed, 25 cts. per month for each meter

Meter rates:

Less than 3,000 cu. ft. per month, 20 cts. per 100 cu. ft.

3,000 to 16,000 cu. ft. per month, 15 cts. per 100 cu. ft.

Over 16,000 cu. ft. per month, 12 cts. per 100 cu. ft.

No discounts

WILLMAR (4,135)

Municipal Plant

Source of supply, wells

Pumping, steam and electricity

Number of metered consumers, 490

No flat rate consumers

Public service—

47 hydrants at \$35.00 each per period of 3 months

Street sprinkling, \$250.00 per year

No other charges to municipality

Commercial service—

Minimum bill, \$3.00 per year

Meter rates:

Less than 500 cu. ft. per month, 35 cts. per 100 cu. ft.

500 to 1,000 cu. ft. per month, 30 cts. per 100 cu. ft.

1,000 to 1,500 cu. ft. per month, 25 cts. per 100 cu. ft.

1,500 to 2,000 cu. ft. per month, 20 cts. per 100 cu. ft.

2,000 to 5,000 cu. ft. per month, 15 cts. per 100 cu. ft.

5,000 to 20,000 cu. ft. per month, 10 cts. per 100 cu. ft.

In excess of 20,000 cu. ft. per month, 6 cts. per 100 cu. ft.

All water bills must be paid on or before the 20th of each month, otherwise a penalty of 10% is added

WINNEBAGO (1,554)

Municipal Plant

Source of supply, deep well

Pumping, air compressor

Number of metered consumers, 230

Number of flat rate consumers, 25

Public service—

26 hydrants at \$20.00 each per year

Street sprinkling, \$200.00 per year

No other charges to the municipality

Commercial service—

Minimum bill, \$4.00 per year

Meter rates, 30 cts. per 1,000 gal.

Flat rates—

For a 5-room house, per year.....	\$5.00
For each additional room, per year.....	.25
For each water lift, per year.....	3.00
For water-power washing, per year.....	4.00
For sprinkling 50- or 60-ft. lot, per year.....	3.00
For each horse or cow, per year.....	1.00
All consumers are to be placed on meter basis	

WINONA (18,583)

Municipal Plant

Pumping, three steam pumping engines; capacity, 6,000,000, 3,000,000, and 2,500,000 gal.

Source of supply, dug and artesian wells

Number of metered consumers, 1,780

Number of flat rate consumers, 1,000

Public service—

Number of hydrants, 380

No charges for hydrant rental, fire protection, etc., to the city

Commercial service

Meter rates:

5,000 gal. per month or less, 20 cts. per 1,000 gal.
5,000 to 10,000 gal. per month, 15 cts. per 1,000 gal.
10,000 to 15,000 gal. per month, 10 cts. per 1,000 gal.
15,000 to 150,000 gal. per month, 8 cts. per 1,000 gal.
Over 150,000 gal. per month, 6 cts. per 1,000 gal.

Churches, charitable and educational institutions, one-half above rate

Minimum rates:

For $\frac{5}{8}$ -in. meter, one faucet, per month.....	\$0.25
For $\frac{5}{8}$ -in. meter, two or more faucets, per month.....	.50
For $\frac{3}{4}$ -in. meter, per month.....	.75
For 1-in. meter, per month.....	1.25
For $1\frac{1}{2}$ -in. meter, per month.....	2.25
For 2-in. meter, per month.....	3.25

Flat rates:

Barber shops, one chair, per year.....	\$3.00
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Each additional chair, per year.....	\$2.00
Baths, public, one tub, per year.....	8.00
Each additional tub, per year.....	4.00
Private dwelling, each tub, per year.....	3.00
Blacksmith shops, one fire, per year.....	2.00
Each additional fire, per year.....	1.00
Boarding houses, one faucet, per year.....	6.00
Each additional faucet, per year.....	1.00
Dwellings, private, one faucet, per year.....	3.00
Each additional faucet, per year.....	.50
Offices, one faucet, per year.....	3.00
Slop sinks, each, per year.....	1.50
Stables, each horse or cow, per year.....	1.00
Urinals, each, per year.....	3.00
Water closets, private dwellings, store, and office, per year	3.00
Boarding houses, per year.....	4.00
Saloons, barber shops, hotels, and other public places, each stool, per year.....	5.00
Sprinkling, from May 1 to Oct. 31, lawns, gardens, and streets, with hose nozzle opening not ex- ceeding $\frac{1}{4}$ in. in diameter; for lots not exceed- ing 9,000 sq. ft.....	5.00
For each additional 1,000 sq. ft. or fraction thereof	.50
Sprinkling sidewalks and store fronts, for 25 ft. or less	3.00
Each additional front foot.....	.10
Soda fountains, each	5.00
Fountains for sprinkling vegetables, each, per month	1.00
Rates for building purposes:	
For laying stone, per cord.....	.10
Laying brick, per 1,000.....	.10
Plastering, per 100 sq. yd.....	.15
Concrete, per cu. yd.....	.05
And the said rates shall be due and payable upon the completion of the work in each case	
Flushing trenches:	
For trenches for gas mains, gas service pipe, water service pipe, and sewer pipe, per 100 lineal ft. or fraction thereof	25

Where meters are installed to supply a sprinkler system, extra fire protection, or for any other purpose where a regular supply of water is not used, the following rental shall be collected, and all water used shall be charged for at regular meter rates; and consumers belonging to this class shall have the privilege of purchasing meters for such use from the board:

Rental for 3-in. meter, per month.....	\$1.35
Rental for 4-in. meter, per month.....	2.00
Rental for 6-in. meter, per month.....	4.00
Rental for 8-in. meter, per month.....	6.50
Rental for 10-in. meter, per month.....	8.00

WORTHINGTON (2,385)

Municipal Plant

Source of supply, artesian well

Pumping, steam

Number of metered consumers, 35

Number of flat rate consumers, 300

Public service—

32 hydrants at \$30.00 per year per hydrant

Street sprinkling, 2½ cts. per 100 gal.

No other charges to municipality

Commercial service—

Meter rates:

3,000 gal. per month or less, 4½ cts. per 100 gal.

3,000 to 5,000 gal. per month, 4 cts. per 100 gal.

5,000 gal. and over, 3½ cts. per 100 gal.

Minimum meter rate per month, \$1.40

Flat rates:

Each private dwelling occupied by one family, per year	\$8.00
Baths, private houses, per year.....	4 00
Each additional bath	1 00
Baths in hospitals	6.00
Baths, public	8.00
Each additional	5.00

Water closets in private dwellings, one family	\$5.00
Each additional	1.00
Water closets in stores, banks, and offices	6.00
Water closets in barber shops, saloons, and other public places	8.00
Urinals in barber shops and other public places	6.00
Stores	8.00
Meat markets	\$12.00 and upward
Vegetable fountains, per season	5.00
Soda fountains, per season	\$18.00 and upward
Laundries, per month	\$3.50 and upward
Photograph galleries, per year	8.00
Dental offices	8.00
Restaurants and lunch counters	12.00
Churches, regular rates except for motors	
Motors and water lifts	4.00
Lawn sprinkling	3.00
Live stock	1.50

ZUMBROTA (1,138)

Municipal Plant

Source of supply, well and reservoir

Pumping, electric power

Number of flat rate consumers, 75

Public service—

Number of hydrants, 33

Street sprinkling by city at 12½ cts. per front ft.

Commercial service—

Flat rates:

Private use, residence, per year	\$5.00
Office tap	5.00
Lawn hydrant	5.00
Saloons	10.00
Restaurants	10.00
Livery barns	25.00
Auto garage	25.00



